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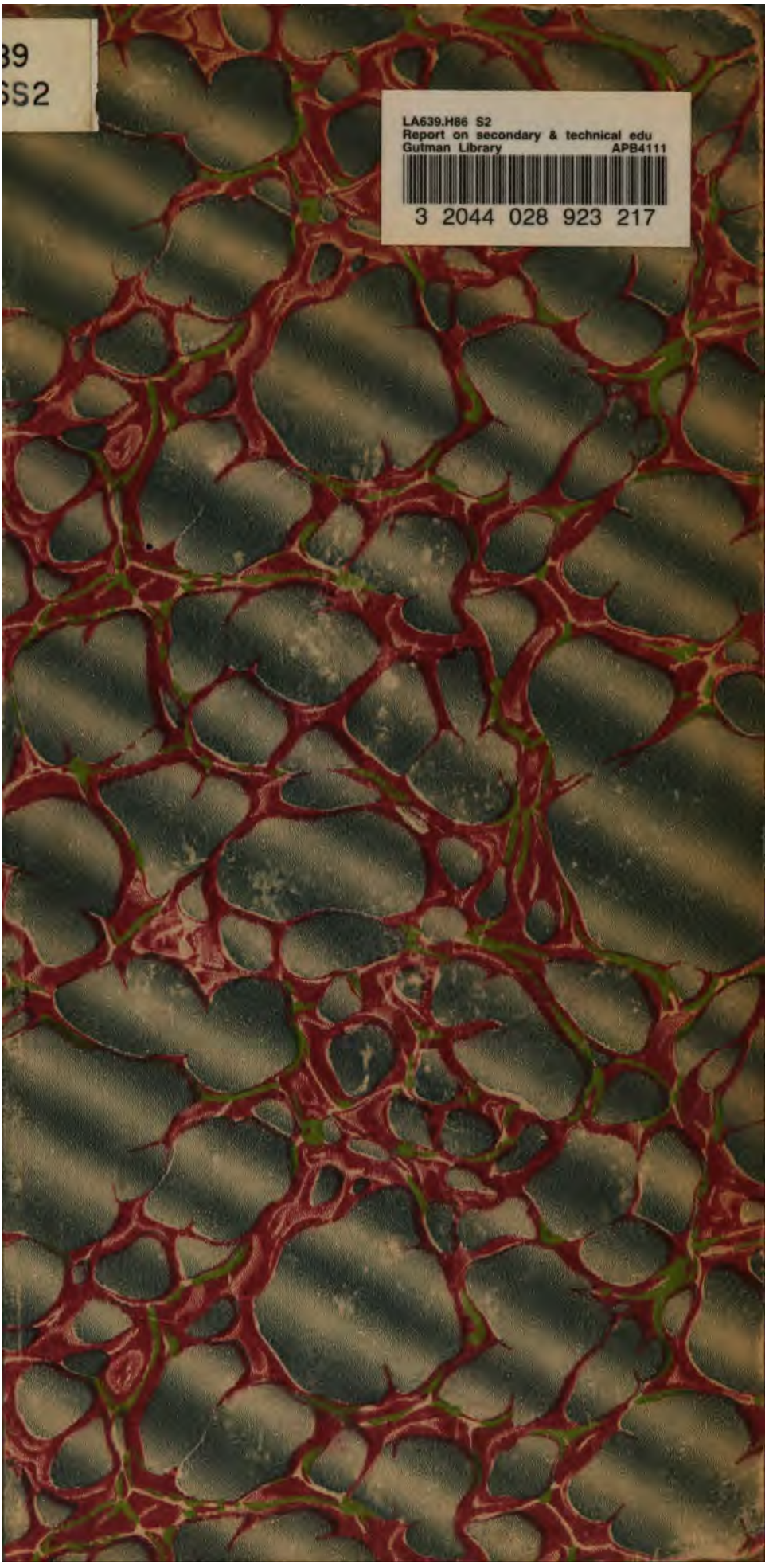
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REPORT

ON

SECONDARY & TECHNICAL EDUCATION IN HUDDERSFIELD.

BY

MICHAEL E. SADLER,

M.A., Oxon. Hon. LL.D., Columbia.
Professor of the History and Administration of Education in the Victoria University of Manchester.

1904.

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CHAPTER I.

Introductory.

The Educational Needs of Huddersfield.

This report is the outcome of an inquiry made by me in the Spring and Summer of 1904, on the invitation of the Education Committee of the County Borough of Huddersfield. The Committee instructed me to inquire into, and report to them upon, the state of secondary education in the Borough, the work of the Technical College, the evening continuation schools and other closely related parts of the educational system which the Act of 1902 has committed to their care.

In the course of my inquiry I have received much valuable help and advice from the Chairman of the Education Committee (Alderman J. E. Willans); from members of the Committee, especially from Alderman J. A. Brooke (Chairman of the Higher Education Sub-Committee, and President of the Technical College), Alderman Ernest Woodhead, Alderman O. Balmforth (Deputy-Chairman of the Education Committee), Councillor G. Thomson, Councillor Chatterton, and the Rev. F. G. Sandford. Through the kindness of Mr. Willans, I had the pleasure of meeting a number of influential residents of the Borough, and the advantage of consulting them on many matters connected with my inquiry. Among these I should mention the then Mayor of Huddersfield (Alderman Inman), Mr. F. Eastwood, Mr. F. W. Bentley, Mr. David Johnston, (Vice-President of the Technical College), and Councillor Broadbent, who has since succeeded to the Mayoralty. As on earlier occasions, I also derived help from the experience of that veteran in educational matters, the Rev. Dr. Bruce. Throughout my inquiry I received unfailing assistance from Mr. George Gaunt, Secretary of Education for the Borough, and from Mr. Thomas Thorp, Secretary of the Technical College. At a time of great pressure, these gentlemen readily supplied me with information and statistics needed for the purposes of my inquiry. The Principal of the Technical College (Mr. Hudson) and the various heads of departments, especially Dr. Grindley, Messrs. Armitage, Lodge, Bower, T. W. Woodhead, Bruce, Pringle, and Marples, rendered me willing aid. From Mr. Turner, H.M.I., and his colleague, Mr. Dennis, I received valuable

suggestions. I desire also to acknowledge the courtesy with which the head-masters and mistresses of the various schools received me on the occasion of my visits to their schools. To Mr. Montgomery, Headmaster of the College Higher Grade School; to Mr. Crump, Headmaster of the Almondbury Grammar School; to Mr. Yates, Headmaster of the Fartown Grammar School; to Mr. Wild, and to Miss Brier, I am under special obligation.

Throughout my inquiry, and in the preparation of this report, I received valuable assistance from Mr. J. L. Holland, now Secretary of Education to the Northamptonshire County Council. The school statistics of which I have made use in the report were collected, on behalf of the Education Committee, by Mr. Gaunt, in the Autumn of 1903.

To a native of the West Riding, and particularly to one who is very closely associated with the neighbourhood of Huddersfield, it was no small pleasure to be permitted to study the educational resources and opportunities of the Borough, and to experience once more the hearty welcome which Yorkshire people never fail to offer to their guests, and not least to those who, as it were, are returning to their old home. This feeling of personal relationship with the district led me to consider with especial interest the educational equipment of Huddersfield, and it will be no small gratification to me if this report should prove of practical value to those who are charged with the very responsible task of organising and developing its secondary schools, and its facilities for technical instruction. Those who do me the honour of reading these pages will know how heartily I admire the individual energy, the toughness of purpose, the sagacity, and the outspokenness which are characteristic of the West Riding. They will also, I trust, not take amiss the frankness and plain speaking of one who earnestly desires the educational welfare of Huddersfield, and who, after careful inquiry into the facts, is convinced that the future industrial prosperity and social welfare of the Borough depend to a critical degree on wise and energetic steps being now taken to improve its elementary, its secondary, and its technical education.

There is an old proverb that "an ounce of mother-wit is worth a pound of book-learning." In no part of England is the wisdom of this adage more keenly appreciated than in Yorkshire. We do not want those kinds of so-called "education" which make a man afraid of trusting his own judgment, and which fill the mind with hesitation or with paralysing doubts. It *is* possible to give people more knowledge than they can digest. It is possible to give them the wrong kind of knowledge and thus, without fitting them to excel in some other line of life, to disqualify them for the efficient discharge of the

duties which they would otherwise have performed with pleasure to themselves and with profit to the community. It is possible by means of an unwise education to spoil people for the real tasks of life; to make them self-conceited and ineffective; and to weaken individuality of character without giving real enlargement to the mind. And those qualities which are especially characteristic of the West Riding, viz: natural shrewdness of judgment, sturdy self-reliance, and contempt for what Montaigne called "letter-puffed pedantry," are exactly the qualities which can be most easily undermined and weakened by the influences of a shallow and pretentious "education." It is worse than wasted labour to "fill the memory and to leave the understanding and the conscience empty." A misdirected kind of school-teaching may educate a lad out of his wits. If it be asked, "does Huddersfield believe in education?" may it not be said, and greatly to its credit, that in the kind of "education" which weakens individuality and impairs practical efficiency, Huddersfield assuredly does not believe?

But the highest kinds of practical efficiency depend upon a combination of five things—knowledge, imagination, judgment, perseverance and personal skill. Without a wide range of knowledge and without the trained power of applying that knowledge to the tasks of home-life, of industry and commerce and of public administration, no individual or community can hope to excel in the intense competition of modern times. Strength of character, unenlightened by knowledge, degenerates into purblind obstinacy. It blunders into conflicts which are disastrous in their issue. It misses great opportunities. It squanders its resources on ill-judged enterprises. It fails to measure its own weakness. It lacks foresight. It does not take in time the steps which make for true efficiency and for ultimate success. In the great industrial and commercial struggles between communities and nations, which year by year become more intense and more critical, the right kind of education is an indispensable part of our equipment. We need an education which opens the mind and trains the practical aptitudes; which inspires courage and faith and fortitude, while also imparting knowledge and the scientific way of looking at things and the scientific way of doing things; which opens up new opportunities and at the same time cultivates the intellectual and moral powers by means of which alone those opportunities can be seen and seized. "Grit" and self-denial and persistency of purpose are as necessary as they ever were; but they must be united with scientific methods of thought, with practical insight into the value of knowledge, with the habit of prudent organisation, and with trained readiness to subordinate immediate profit to larger future gain—social gain, not merely

individual gain. We do not live for ourselves alone. Upon each individual life the community and the nation have in times of stress and danger their paramount claims ; and it is the business of a good education to make boys and girls sensitive to those claims, in order that when they come to man's and woman's estate they may be ready with intelligent and large-minded unselfishness to sacrifice, when necessary, narrow, personal interests to those which are social and national. Nor can any education accomplish this unless it has regard to those deeper sources of human endurance and of self-sacrifice, whence come the faith and insight which fortify character and enlighten its ideals. Hard work, clear thinking and high aims are the three things which mark the outcome of a good education. And may we not say that in such an education Huddersfield is prepared heartily to believe ?

But such an education is a costly thing. It cannot be bought cheap. It can only be given by the best teachers—teachers of strong character and marked individuality of temperament, who are also highly trained and cultivated, and unselfishly devoted to their work. Nor can such an education be hurried. Its processes are necessarily slow. They involve leaving children a long time at school. And in the accomplishment of their purpose, school and home and employers of labour must all work together. Education is really a social task. It is not a matter that can be left to the schools alone. The schools must be in close touch and sympathy with practical life. They must work hand in hand with the parents and with the employers of labour. The latter must adjust their requirements to the needs of the schools. On all sides there must be co-operation, sympathy, self denial, and the willingness to subordinate present comfort to future advantage. In other words, the whole community must sincerely believe in education, and the education given must be of a kind which justifies that belief.

Such belief, however, would not be justified by an education which in its dislike of pedantry and of bookish unreality ran into the other extreme of narrowness and illiberality. There are no short-cuts through education to real efficiency of mind or character. Technical skill must rest upon a basis of liberal training. The higher kinds of technical education presuppose an efficient and liberal secondary education. And in the training of every boy and girl in the community, the fundamental things are not the premature imparting of habits of manual skill and the " breaking-in " of the mind and body to a life of toil, but the quickening of the imagination, the opening of the mind, the broadening and refining of the sympathies, and the firm but kindly inculcation of habits of industry and of self

control. First and foremost, it is the task of the schools to humanize. Having humanized, it is their further task to impart efficiency for life as it has to be lived; resolve to make it better worth living; and faith in those things by which alone men and women can live worthily and with composure of mind.

Can we say, however, that education as it now exists in Huddersfield accomplishes these things, or that it is so equipped as to be able to accomplish them? Must we not admit that there are very serious gaps in its organisation and that consequently—in spite of the great generosity and public spirit of individual benefactors—the claims of education have not yet gained as strong a hold upon the minds of the whole community as is the case in great manufacturing centres in the United States, in Germany and in Switzerland?

The following chapters discuss in detail the present state and needs of secondary and technical education in Huddersfield. Three points of cardinal importance stand out among those which call for the consideration of the Education Committee of the Borough.

First, Huddersfield needs a first-rate public secondary school for boys. In respect of this necessary part of the educational equipment of a modern industrial community, I know of no town of equal importance in Germany, in Switzerland, or in the progressive parts of the United States of America, so ill-provided as Huddersfield is to-day.* As regards secondary education for the most promising boys from all sections of the community—those whose abilities will fit them to take hereafter a leading part in the business and government of the town, the Borough is, as compared with its rivals, relatively worse off to-day than it was nearly forty years ago. When the late Sir Joshua Fitch investigated the state of Secondary Education in the West Riding on behalf of the Schools Inquiry Commission, he found the now defunct Huddersfield College" an eminently useful and well-ordered institution. . [which] in all its equipments, in the organisation of its teaching power and in the character of the instruction itself had few rivals in the district."† Once more to attain this distinction, according to the new standards of educational efficiency, seems an aim worthy of the resources of the Borough, of the prudent liberality of the ratepayers, and of the practical wisdom of the Education Committee.

Secondly, Huddersfield needs a first-rate public High School for Girls. The improvements in secondary education for girls should keep pace with those made in the secondary education for boys.

* Allowance must always be made for the number of Huddersfield boys and girls who are sent to Boarding Schools for the whole or part of their secondary education.

† Report of the Schools Inquiry Commission, 1868. Vol. IX. p. 233.

The social and intellectual benefit which Huddersfield would derive from a first-rate public High School for Girls would be great indeed.

Thirdly, the Technical College ought to concentrate its efforts upon two things—the furtherance of the staple trade of the town and the training of teachers. Of these two things, the first is the more urgent. There is no room in Huddersfield for a University College, but there is need, and urgent need, for highly organised and very well equipped technical instruction, directed with the utmost procurable skill to the definite task of improving the industrial outlook of the Borough.

No one can study the educational history and resources of Huddersfield without being impressed by the great natural ability of its inhabitants, by the vigour and individuality of their character, by their love of their native place, and by their deep interest in certain great ethical and political questions which closely affect the welfare of individuals and communities. These remarkable gifts are assets of high value from the point of view of education and of municipal welfare. If there be added to them the power which comes through belief in education and through the training given in first-rate schools, some of the darker clouds which now seem to darken the horizon will melt away.

CHAPTER II.

Statistical Survey of the supply of Secondary Education in Huddersfield.*

At the present time five public and eight private schools can be considered as supplying secondary education for boys and girls within the area of the County Borough of Huddersfield. Of the public schools, one—Almondbury Grammar School—is for boys only; the other four—the Technical College School of Science, the College Higher Grade School, Fartown Grammar School, and Longwood Grammar School—are virtually mixed schools. Of the private schools there are two for boys only, and two for girls only, while four are girls' schools which admit little boys to their preparatory classes. The total number of pupils in all these schools during the Autumn Term of 1903 is shown in the following table †:—

	No. of Schools.	Boys.	Girls.	Total.
Public ..	5	283	207	490
Private ..	6	96	122	218
Total ..	11	379	329	708

In the secondary schools of Huddersfield there are, therefore, 3.99 boys, 3.46 girls, or in all 7.45 boys and girls, for every thousand of the population of the Borough.‡

For the purposes of the Schools Inquiry Commission, which reported in 1867, elaborate calculations, based upon the number of

* The population of Huddersfield in 1901 was 95,047. Of this total 9,340 were under 5 years of age; 15,795 were 5 and under 15; 11,372 were 15 and under 21. The area of the County Borough is exceptionally large in proportion to the population. Its extent is said to equal that of Glasgow. The produce of a penny rate is £1747.

† The table does not include two private schools, the information respecting which did not reach me. These two schools now (November, 1904) contain 38 girls and 5 boys.

‡ If we deduct the number of secondary school pupils coming from outside the Borough area, the proportion per 1000 of the population actually attending secondary schools in the Borough is 5·8. But this figure would fail to take into account the unknown but considerable number of pupils who are sent out of Huddersfield to secondary schools elsewhere.

£20 houses and checked by the number of marriages by licence and by local investigations, were made with the object of determining how many boys between the ages of 8 and 16 ought to be in the secondary schools. The result of these calculations was that 12.28 per 1000 of the population represented the number of *boys* who might be expected to require secondary (including what we should now call higher elementary) education. The Commissioners, after taking into account the varying demand for secondary education according to the social circumstances of different districts, were " on the whole disposed to think that, without attempting any complete statistical accuracy, they might draw for practical purposes the following conclusions, advisedly given only in round numbers." " First, that in order to bring the best secondary education within the reach of parents there should be provision ultimately in *towns* for not less than 16 boys per 1000 of the population : secondly, that in every *town* large enough to maintain a day school, there should be at once provision for 10 boys per 1000 of population, with a power of extension ; and thirdly that, of the whole presumed demand, one-half at least should be assigned to the requirements of scholars of the third grade (viz : carrying education up to the age of 14 or 15.)" * Thus the Commissioners of 1867 roughly estimated that in *towns* about 5 *boys* per 1000 of the population should be receiving a secondary education up to at least 16 years of age. The Secondary Education Commissioners, who reported in 1895, found that they could not arrive with confidence at any arithmetical formula which would express the number of pupils requiring secondary education in any given area. " Investigation of the problem convinced us," they wrote, " that mere population is no sufficient guide to the educational needs of each locality . . . Much will depend on the character of the population in each area . . . It seems impossible to formulate with any approach to accuracy a general rule for determining the percentage to population of the children in any area of given size who may be expected to attend a secondary school of any one of the so-called grades " †

Inquiries in Liverpool and Birkenhead, conducted in the spring of this year, disclosed the fact that in Liverpool 4.14 boys and 3.70 girls, and in Birkenhead, 6.59 boys and 8.07 girls per thousand of the population were in the secondary schools. Measured against Liverpool, the Huddersfield secondary schools are 14 boys and 22 girls short ; measured against Birkenhead they are no less than 247 boys and 437 girls short. The comparison with these two towns is not an unfair one. The presence or absence of endowment is the condition which most powerfully affects the cost of secondary education,

* *Report Vol.* I., *p.* 99.
† *Report Vol.* I., *p.* 283.

and consequently the numbers who are able to take advantage of it. Neither Liverpool nor Birkenhead has any educational endowment.

A comparison should also be drawn between the number of pupils receiving secondary education in Huddersfield and the corresponding statistics for some of the American cities. Such figures as 17 per thousand (Indianapolis), or 18 (Denver), or 22 (Newton, Mass.), leave Huddersfield far behind. In the United States as a whole, 7.2 boys and girls per thousand are receiving a secondary education in public schools, rarely commencing before their fifteenth year. The number of children of all ages in the Huddersfield public secondary schools is only 490 or 5.1 per thousand; while if we exclude all who are not fourteen years of age or upwards, it drops to 170, or well under 2 per thousand.

In the boys' public secondary schools of Prussia in 1902, there were 5.6 per thousand of the population, a number which leaves Huddersfield 153 behind, if all her secondary schools are included in the reckoning. In the Prussian Girls' Secondary Schools, public and private, there were in the same year 3.6 per thousand of the population Again Huddersfield is behind, though only by 13.

In the city of Hamburg in 1902, there were in the public and private secondary schools 11.4 boys and 11.7 girls per thousand of the population. Measured by this standard, Huddersfield is 712 boys and 760 girls short in the number of pupils attending secondary schools in the Borough.

Statistical tests have their obvious limitations. They fail entirely to gauge the quality of the work which is being done. Yet they do measure the hold which the schools have upon the common life. The foregoing figures all point one way. They bid us draw the conclusion that in Huddersfield of to-day there is not that general interest and pride in the secondary schools which is becoming more and more the mark of an alert and progressive community.

A further analysis of the numbers in the schools brings out the following facts:—In the public secondary schools, 15 of the pupils are boarders, and at least 127 out of the 490 boys and girls reside outside the County Borough area*; in the private schools, there are 17 boarders and about 30 live outside the Borough area.

Of the number of Huddersfield boys and girls who are sent to schools outside the area I am unable to form an estimate. I am told that it is becoming more and more the rule for well-to-do parents

* The statistics show 141, but 14 at least of these are children of ratepayers of the Borough.

to send their sons away to the larger Public Schools (*e.g.*, Charterhouse, Rugby, Marlborough, Repton,) and their daughters to high-class boarding schools. Indeed the principal private boys' school in the town is very largely a preparatory school for the Public Schools. A few boys travel daily from Huddersfield to the Bradford Grammar School.

The following table gives in detail the number of boys and girls in each of the public secondary schools of the town in the Autumn Term 1903. I have omitted two classes of students of school age :— the candidates, probationers and pupil teachers at the Technical College Pupil Teacher Centre, and the students who are studying single subjects, in day classes, at the Technical College.

	Boys.	Girls.	Totals.
Almondbury Grammar School....	48	..	48
Technical College School of Science	13	25	38
College Higher Grade School	93	102	195
Fartown Grammar School	77	53	130
Longwood Grammar School.....	52	27	79
Totals	283	207	490

CHAPTER III.

Description of the Public Secondary Schools of Huddersfield.

(I). The Almondbury Grammar School.

The oldest of the Huddersfield Schools is Almondbury Grammar School, founded in the year 1609, under letters patent from James I. The school is about two miles and a half south-east from the centre of Huddersfield, and seven minutes walk from the electric car terminus. It stands upon a hill side overlooking a well wooded valley of great natural beauty. In its outward aspect it would appeal strongly to any sensitively minded boy. The old school house and dining hall of 1609 are still standing. The main schoolroom, which has about 960 square feet of floor space, the two classrooms and the principal dormitories were built in 1883. Two laboratories for Chemistry and Physics have been recently added, and the old laboratory has been turned into a gymnasium. As it stands, the school could easily accommodate 80 to 100 boys, of whom about 20 might be boarders. On the estate, there are two playing fields, in addition to the playground.

The following table shows the number of boys in the school at the time of my visit in July of this year, their ages, and their classification :—

	9 and under 10	10 and under 11	11 and under 12	12 and under 13	13 and under 14	14 and under 15	15 and under 16	16 and under 17	17 and under 18	Totals
Preparatory Class ..	2	3	7	1	..	..	..	..	..	13
Division iv.	..	..	3	3	11	3	1	..	.	21
,, iii.	..	..	..	2	4	5	2	..	..	13
,, ii. .. .	..	..	..	..	..	..	3	..	1	4
,, i.	..	..	..	..	..	..	..	1	1	2
Totals.. ..	2	3	10	6	15	8	6	1	2	53

The localities from which those boys come are as follows:—

Within the Borough.		Outside the Borough.	
Almondbury	9	Honley	6
Huddersfield Town	6	Fenay Bridge	5
Dalton	5	Meltham	2
Rashcliffe and Lockwood	4	Kirkburton	2
Birkby and Fartown	4	Holmfirth	2
Armitage Bridge and Berry Brow	2	Farnley Tyas	1
Edgerton	1	South Crosland	1
Oakes	1		
Crosland Moor	1		
Paddock	1		
Total	34	Total	19

It will be seen at once that the West Riding County Council's interest in the future of the school is considerable, practically one-third of the present pupils coming from the county area. The co-operation of the County Council and of the County Borough Council is therefore desirable in regard to the school. At present the County Council makes an annual grant of £30 and retains four free places for its scholarship holders. The County Borough Council does nothing.*

With the exception of the preparatory class, the school is organised as a Secondary Day School under the Board of Education, each of the divisions representing one year in the four years' secondary day school course. Hardly any boys remain beyond their sixteenth year, and no connexion has yet been established with any place of higher education. A provision in the scheme for Leaving Exhibitions is not carried out, owing to the poverty of the foundation. There are twelve free places in the school, eight for boys who have been educated for three years in public elementary schools in the ancient parish of Almondbury, and four for boys who have for three years resided within the parish. There is also a maintenance fund of £50 a year, from which grants are made to boys of the ancient parish of Almondbury, whose pecuniary circumstances are such that they cannot remain at the school without help. In practice these maintenance grants have become internal scholarships of £10 each for promising and necessitous scholars. Four were being held in the school at the time of my visit.

*This was correct at time of writing, but I am glad to hear that in October last a Sub-Committee of the Education Committee passed a resolution recommending a grant of £100. As I correct the proof of the passage, this recommendation awaits confirmation by the Council.

The school is organised in two sides, literary and commercial, the difference being that on the latter side Latin is replaced by book-keeping, shorthand and commercial arithmetic in the three upper divisions, and by nature study and drawing in the two lower ones. No Greek is taught in the school, and French is the only modern language taken. The existence of two sides in so small a school imposes a great strain on the limited resources of the staff; the Headmaster, for instance, always has to take two divisions simultaneously in both French and Latin. He has not sufficient time for general supervision. The new regulations for secondary schools under the Board of Education will re-open the question of the teaching of Latin throughout the school. In my opinion, a little Latin would be educationally much more valuable than the modicum of book-keeping and shorthand which is all that is possible under the present conditions. The addition of drawing to the curriculum for all boys, and of woodwork for the lower divisions, also calls for consideration. There is no need in Huddersfield to dwell upon the educational value of manual training, and without good instruction in drawing no secondary school can be said to be efficiently equipped. An art room and a workshop should be the next structural additions to the school.

About two-thirds of the pupils come from the public elementary schools and about one-sixth from private schools; a few are transferred from other secondary schools, and a few have never been to school before. The boys are regularly entered for public examinations, the third division taking the Cambridge Preliminary Local, the second the Cambridge Junior Local, and the first the London University Matriculation Examination. It is highly creditable to any school that it should figure, as Almondbury does, in the London Matriculation lists year after year, but the influence of the Local Examinations upon the curriculum of the lower forms is seriously open to question. It has, for instance, prevented hitherto the laying down of a connected course in the mother tongue, covering the four years of school life. Certainly, the practice of entering young boys for the Cambridge Preliminary ought to cease forthwith.

The school fees chargeable to day boys stand at the maximum allowed under the scheme, viz: £10 a year. There are additional fees of £1 for the use of the science laboratories, and of £1 for stationery and games. The maximum inclusive fees chargeable to full and weekly boarders are 45 and 40 guineas respectively.

In addition to the school fees and the annual grant of £30 from the West Riding County Council, the financial resources of the school are, first, the income from the Grammar School and Wormall's

Charity estates ; second, an annual grant from the trustees and visitors of Nettleton's Charity, and thirdly, since 1903, the Board of Education's Secondary Day School grant. During the last four years the net foundation income has varied between £200 and £230 ; the grant from Nettleton's Charity, annually renewed, has been £155 ; and the Board of Education grant was in 1903, £59. Since the enlargement of the school premises in 1883, a sum of £1267 Consols has been accumulating at compound interest in the hands of the Official Trustee of Charitable Funds to replace stock then sold out. At December 31st, 1903, this accumulated fund amounted to £2213. As the period of accumulation was originally fixed at 20 years, a further £60 or £70 per annum should shortly be available for the purposes of the school. At the commencement of the quadrennium under consideration, the foundation was in debt to its bankers for £1483.* In the following table the first column shows the deficit on each year's working (in pounds only) since 1900 ; in the second column will be found the average number of boys in the school ; and in the third the average educational cost per head per boy. In calculating this last item I have omitted all capital and estate management charges and also the cost of scholarships.

Year.	Deficit.	No. of Boys.	Cost per Head.
1900	£292	29	£22 8 5
1901	£320	26	£25 1 7
1902	£243	32	£21 4 3
1903	£127	44	£17 17 10

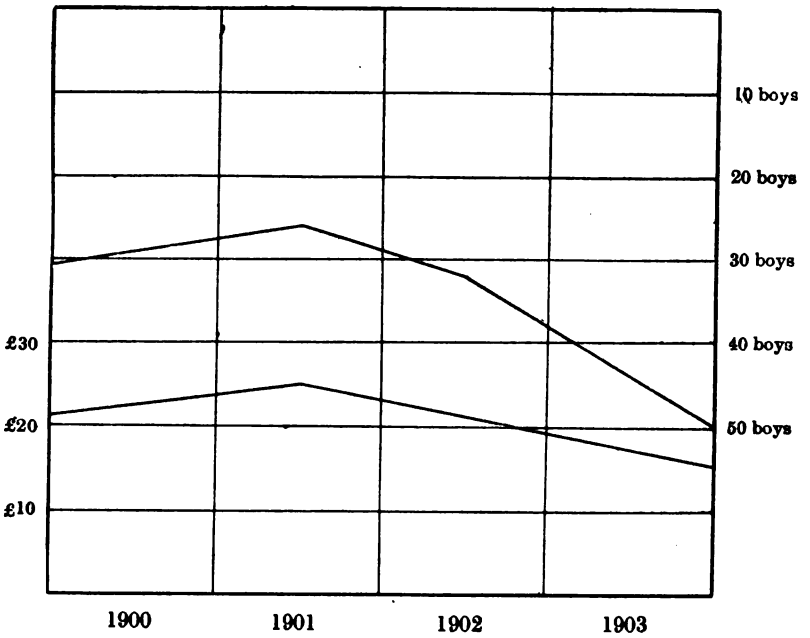
The facts summarised in the third and fourth columns of this table are shown graphically in the diagram on the following page. It will be seen how quickly the cost per head fell as the number of boys increased.

The difficulty before the Almondbury Grammar School will be to tide over the expensive intervening years while the school is growing, handicapped as it is by the large debt upon current account.

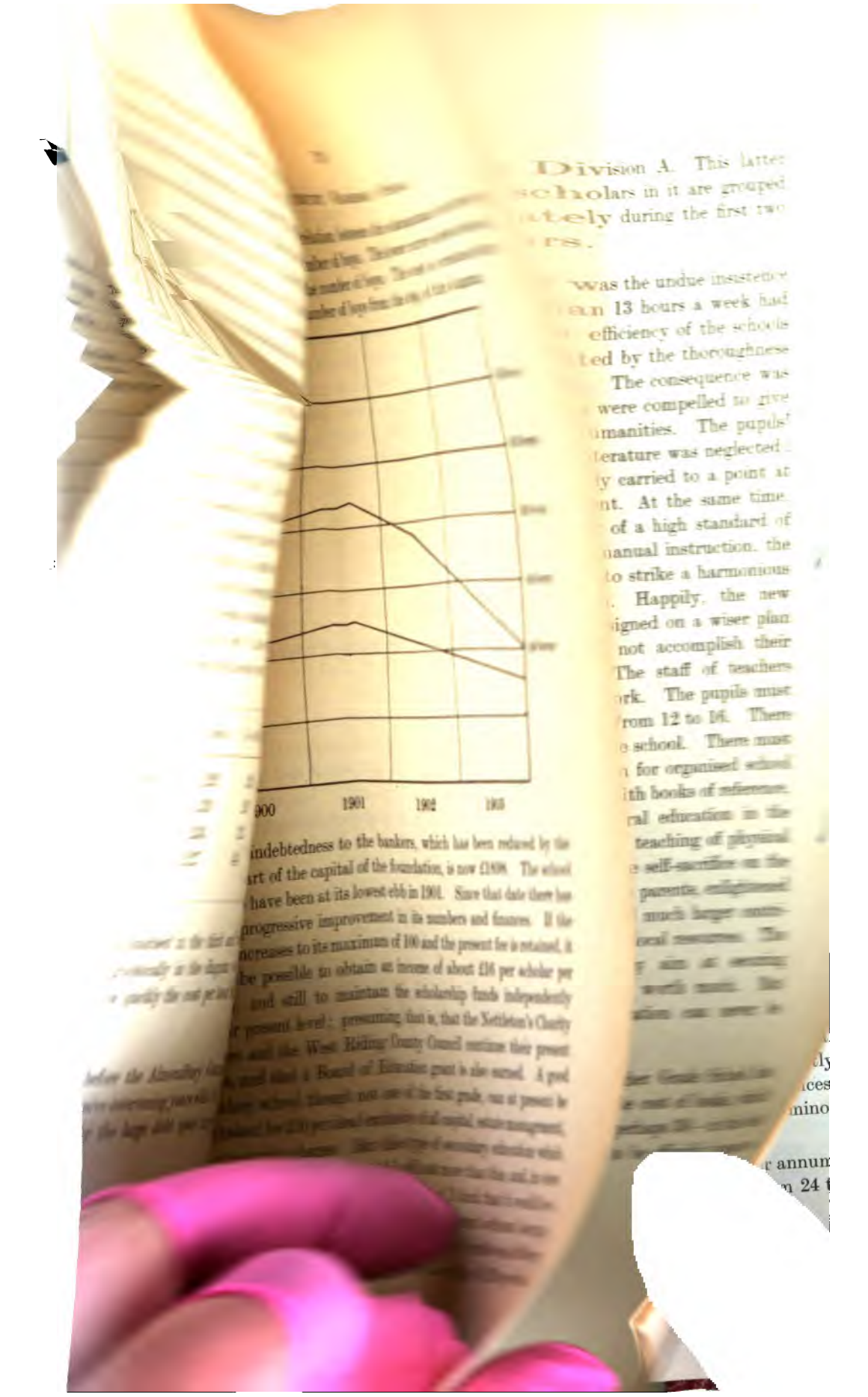
* The interest on a large part of the debt has been paid by Mr. William Brooke and Alderman J. A. Brooke, to whom and whose family the school owes a great debt of gratitude for unfailing interest and generous support.

ALMONDBURY GRAMMAR SCHOOL.

Diagram showing the relation between the educational cost per boy per annum and the number of boys. The lower curve shows the cost, and the upper curve the number of boys. The cost is reckoned from the *bottom*, the number of boys from the *top*, of the diagram.



The indebtedness to the bankers, which has been reduced by the sale of part of the capital of the foundation, is now £1898. The school seems to have been at its lowest ebb in 1901. Since that date there has been a progressive improvement in its numbers and finances. If the school increases to its maximum of 100 and the present fee is retained, it should be possible to obtain an income of about £16 per scholar per annum, and still to maintain the scholarship funds independently at their present level; presuming, that is, that the Nettleton's Charity trustees and the West Riding County Council continue their present grants, and that a Board of Education grant is also earned. A good secondary school, though not one of the first grade, can at present be maintained for £16 per head exclusive of all capital, estate management, and scholarship charges. But the type of secondary education which is urgently needed in Huddersfield will cost more than this, and, in view of the industrial and civic interests involved, I think that it would be a very grave mistake for the Borough to rest content without having a secondary boys' school on a much higher plane of intellectual efficiency than can, in the long run, be secured by an outlay of £16 per head.



It will be evident from what has been already said that the present Headmaster, Mr. R. S. Crump, M.A., is making a gallant struggle against considerable difficulties. The financial position makes it impossible to pay adequate salaries for good assistant masters. The distance of the school from the town, an advantage according to all modern ideas when once the school has established its reputation, is at present a drawback. The unwillingness of parents —" heedless of far gain "—to allow their sons to remain for the full four years of a secondary curriculum is all against the maintenance of a high intellectual standard in the school. But if help and encouragement are forthcoming, I am convinced that the Almondbury Grammar School can render great educational service to Huddersfield.

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(2). The College Higher Grade School.

The College Higher Grade School was opened in June, 1894, " to provide higher education for children whose parents are prepared to keep them to their studies for two or three years beyond the ordinary course of instruction in the elementary schools." The school premises were originally built to house the old proprietary Huddersfield College, which came to an end in 1893. They were purchased together with the site by the School Board for £5,000, and a further sum of £4,059 was spent in re-modelling and re-lighting what must have been originally a rather gloomy building. The central hall and classrooms on the first floor are now light and airy ; some of the ground floor rooms, however, leave much to be desired ; this is especially true of the two electrical laboratories, though admirable work has been, and is being, done in them. The facilities for metal work are hardly adequate. There is no gymnasium. The very limited playground space is a most serious defect. There is no playing field, and consequently there are none of the organised games upon which English secondary schools rightly depend for training their boys to be hardy, self-controlled, and able to co-operate with, and, if need be, to control others.

The school consists of two parts,—an elementary section which contains Sixth and Seventh Standard Classes for boys and girls separately ; and a Science Section working under the four years' course laid down by the Board of Education for secondary day schools

in the category known, until this year, as Division A. This latter section is the true secondary school. The scholars in it are grouped in years, boys and girls being taught separately during the first two years, and together during the last two years.

The great defect of the Division A course was the undue insistence upon Science and Mathematics. Not less than 13 hours a week had to be devoted to these two subjects, and the efficiency of the schools for grant-earning purposes was largely estimated by the thoroughness of the teaching of, and equipment for, science. The consequence was that against their better judgment the schools were compelled to give an insufficient time to the teaching of the Humanities. The pupils' powers of expression were not cultivated; literature was neglected; and the modern language instruction was rarely carried to a point at which it would be of real benefit to the student. At the same time, by the steady pressure they exerted in favour of a high standard of teaching in science, and by their demand for manual instruction, the old regulations did good. It was their failure to strike a harmonious balance in the curriculum which did harm. Happily, the new regulations for secondary schools have been designed on a wiser plan and in a more liberal spirit. But they will not accomplish their purpose unless five conditions are fulfilled. The staff of teachers must be highly cultivated and skilful in their work. The pupils must stay at the school for at least four years : viz, from 12 to 16. There must be a strong corporate feeling throughout the school. There must be a playing field with plenty of accommodation for organised school games. And the school must be well equipped with books of reference, maps, and other appliances needed for a liberal education in the Humanities, as well as with laboratories for the teaching of physical science. All this will cost much. It will require self-sacrifice on the part of the teachers, self-denial on the part of the parents, enlightened support on the part of employers of labour, and much larger contributions than heretofore from national and from local resources. The new regulations for Secondary Schools rightly aim at securing a good education. No other kind is really worth much. But the blunt fact is that a really good education can never be cheap.

From its commencement the College Higher Grade School has been free, the only expense to pupils being the cost of books, which varies from about 10/– in the first year to perhaps 30/– in the last year of the four years' course of what used to be officially known as the " School of Science."

At the time of my visit in July of this year the numbers in the four years' course were as follows :—

	Boys		Girls		Total
First year	57	..	58	..	115
Second year	12	..	18	..	30
Third year	8	..	4	..	12
Fourth year	4	..	5	..	9
Totals	81		85		166

The third year of the course covers the ground of the Cambridge Junior Local Examination, for which the pupils are entered. The fourth year pupils prepare for the Matriculation Examination of London University, in which the school has consistently distinguished itself. It is significant that out of a class of eight who were preparing for Matriculation, only one proposed to take Latin—through the study of which all who aspire to the older of the learned professions must necessarily pass, because Latin is the key to the history of western culture, to the whole group of Romance Languages, and to any thorough understanding of the intellectual and historical basis upon which our modern civilization rests.

In the following table of localities from which the scholars are drawn, the elementary section of the school has also been included.

INSIDE THE BOROUGH.

	Boys		Girls		Total
Fartown	41	..	40	..	81
Central Huddersfield	28	..	34	..	62
Lockwood	30	..	21	..	51
Moldgreen	24	..	17	..	41
Marsh	12	..	14	..	26
Lindley	12	..	7	..	19
Newsome	7	..	11	..	18
Berry Brow	8	..	10	..	18
Almondbury	5	..	10	..	15
Longwood	10	..	—	..	10
Paddock.....	3	..	5	..	8
Deighton	5	..	1	..	6
Edgerton	2	..	—	..	2
Outlane	1	..	—	..	1
	188	..	170	..	358

OUTSIDE THE BOROUGH.

	Boys	Girls	Total
Slaithwaite	8	6	14
Holmfirth	5	5	10
Meltham	3	6	9
Kirkheaton	—	9	9
Mirfield	4	4	8
Golcar	4	3	7
Honley	3	3	6
Emley	3	2	5
Lepton	4	1	5
Milnsbridge	3	2	5
Linthwaite	4	—	4
Netherton	3	1	4
Shelley	1	3	4
Kirkburton	1	2	3
Marsden	2	1	3
Thongsbridge	2	1	3
Uppermill	3	—	3
Brighouse	1	1	2
Armitage Bridge	1	—	1
Holmbridge	1	—	1
Farnley Tyas	1	—	1
Netherthong	—	1	1
Oldham	1	—	1
Penistone	—	1	1
Scammonden	—	1	1
Totals	58	53	111

The vast majority of the pupils come from the public elementary schools of the district; a few, however, come from other secondary schools and a few from private schools. Admission can be obtained in either of two ways. In June of each year an examination is held about equal in difficulty to a Standard V. examination, and those who succeed in passing it enter Standard VI. in the elementary section of the school. Or any pupil who passes the Standard VI. examination which is held by the Education Committee's Inspectors at each of the public elementary schools can be admitted forthwith. As a uniform school year has not been adopted by the Education Committee, Standard VI. at the College Higher Grade School acts as a sort of reservoir into which pupils come at any and every period of the school year.*

* Since this was written, the Sub-Committee have recommended the adoption of a uniform school-year for Huddersfield, and it is hoped that, before this report appears, their recommendation may be adopted by the Council.

The school year for the elementary section of the Higher Grade School closes with the end of May, when those pupils who are fit are at once drafted from Standards VI. and VII. into the Secondary School Course, and are thus ready to begin the secondary work in August. Those pupils who are not fit to go up to the Secondary School Course are left to form the Standard VII. of the next school year. To illustrate the working of the elementary section I give the numbers in the two standards at selected dates in 1903 and 1904.

	Std. VI.		Std. VII.
June 12th, 1903	156	..	100
August 1st, 1903	..Commencement of Secondary School Year		
September 4th, 1903	70	..	91
December 4th, 1903	83	..	80
March 11th, 1904	126	..	98

The 70 pupils in Standard VI. on September 4th, are new-comers to the school, while the 91 in Standard VII. are the remnants of both Standards of the previous year who were not promoted to the Secondary School Course. The steady growth of Standard VI. throughout the year, as new pupils come in from the other schools, appears quite clearly.

As an illustration of the working of the system from another point of view, I find that of 37 boys who in July, 1904, had just been promoted to the Secondary School Course : —

7	had been in the elementary section			1 month and less than	3 months	
7	,,	,,	,,	3 months	,,	6 months
7	,,	,,	,,	6 months	,,	1 year
16	,,	,,	,,	upwards of 1 year.		

In addition to acting as a reservoir, the elementary section furnishes some opportunity for introducing subjects and methods which are distinctive of the secondary school. French and algebra are taken up and the syllabuses in geography and in drawing differ from those followed in the elementary schools. It appears to me, however, that these advantages must be to a great extent neutralised by the necessity which at present exists of conducting Standard VI. on the principle of a public inn, where one guest arrives to dine when another is half-way through his meal. In the interests of organisation in the Higher Grade School, it is very desirable to cut off the stragglers by adopting a uniform school year throughout the Borough.

Before considering the organisation of the Secondary School Course, it will be well to set out the statistics of those who never get further than the elementary section of the school.

In the following table I have given, first, the number of boys and girls in each standard of the elementary section who actually left the school from that standard during the school years 1901–2, 1902–3 and 1903–4 (and therefore did not proceed to the Secondary School Course at all) and, secondly, the same numbers expressed as percentages of the maximum numbers in the standards at any time during the years in question.

	1901-1902.				1902-1903.				1903-1904.			
	Std. VI.		Std. VII.		Std. VI.		Std. VII.		Std. VI.		Std. VII.	
	No. who left.	Percentage.	No. who left.	Percentage.	No. who left.	Percentage.	No. who left.	Percentage.	No. who left.	Percentage.	No. who left.	Percentage.
Boys	5	6·7	41	43·6	7	8	46	58·9	3	4·2	47	41·2
Girls	6	8·4	43	53·7	3	5	41	56·9	1	1·3	40	48·7
Totals.....	11	7·5	84	48·2	10	6·8	87	58	4	2·7	87	44·3

These figures are significant. They show that in the school-year 1903–4 nearly half, and in the school-years 1901–2 and1902–3 more than half, of the pupils who entered the elementary section of the Higher Grade School did not cross the threshold of the secondary school course, properly so called. There is no reason to doubt that the great majority of these pupils were the better for their sojourn at the Higher Grade School. They enjoyed a longer period of schooling than probably would otherwise have fallen to their lot. They entered into the life of an institution which has already done much for Huddersfield. They caught, at any rate, a glimpse up the avenue of higher education, instead of (as might too easily have otherwise been their lot) " marking time " at the top of some other school. These are the advantages which the promoters of the College Higher Grade School had in view ten years ago when the school was opened. They believed that there was need to provide further educational opportunities " for children whose parents were prepared to keep them to their studies for two or three years beyond the ordinary course of instruction in the elementary schools." The event has proved them to be right.

When the College Higher Grade School was opened in 1894, it was not intended to be a secondary school, but (as its name implied) a higher elementary school. It was natural, however, in the circumstances, that the School Board should avail itself of the opportunity

of earning, from the Science and Art Department, as it was then called, Government grants in aid of the expenses of the school. Thus, without there being any change in the original intention of the promoters of the Higher Grade School, the latter became (in respect of the upper part of its work) an "Organised Science School." in connexion with the Science and Art Department. But in the meantime the need for great improvements in our national system of secondary education had impressed itself on the public mind. One of the administrative results of this momentous change in public opinion was a change in the official title of the "Organised Science School" to "Secondary School, Division A." But the change was at first one of form rather than of substance. The College Higher Grade School, though its upper portion had become in the eye of the Department a secondary school, remained free to carry on the educational work which its promoters, well knowing local needs, had wisely intended it to undertake, viz : the task of supplementing and carrying forward the studies of those children whose parents were prepared to keep them at school for two or three years beyond the conclusion of the ordinary course of elementary instruction.

The matter did not, however, rest here. The more closely the question of secondary education was investigated, the clearer did it become that, if a secondary school is to do its true work, it must keep its pupils for a course of four years at least, *i.e.* from 12 to 16, or from 13 to 17. Accordingly the Board of Education has in the present year given for the first time an exact administrative definition to the term "Secondary School." In future, for the purpose of the Board's regulations, the term "Secondary School" "will be held to include any day or boarding school which offers *to each of its scholars, up to and beyond the age of* 16, a general education, physical, mental and moral, given through a complete graded course of instruction of wider scope and more advanced degree than that given in the Elementary Schools." Certain points in its definition the Board selects for emphasis :—First, "the instruction must be general; *i.e.* must be such as gives a reasonable degree of exercise and development to the whole of the faculties, and does not confine this development to a particular channel, whether that of pure and applied Science, of literary and linguistic study, or of that kind of acquirement which is directed simply at fitting a boy or girl to enter business in a subordinate capacity with some previous knowledge of what he or she will be set to do." "Specialisation . . should only begin after the general education has been carried to a point at which . . a certain solid basis for life has been laid in acquaintance with the structure and laws of the physical world, in the accurate use of thought and language, and in practical ability to begin dealing with affairs." The old Division A course,

or " school of science " course as it was originally called, may not now be begun with scholars averaging less than 13 years of age, and only then if the Board is satisfied that the proposed four years' course is sufficiently advanced and " specially suitable for the circumstances of the locality." The second point which is emphasised is that the course must be complete, *i.e.*, " must be so planned as to lead up to a definite standard of acquirement in the various branches of instruction . . . and not stop short at a merely superficial introduction to any one of them." It is therefore insisted that the course shall as a rule cover the four years from 12 or 13 to 16 or 17, and in the case of schools, which fail within a reasonable time to carry an adequate proportion of the scholars up to the third and fourth years of the complete course, the Board's grants and recognition will be entirely withdrawn. In the third place " the instruction must be graded in its various branches."

These new regulations are, from the point of view of those who are pressing for efficiency in our English secondary education, undoubtedly wise. They make a reasonable demand. Nothing short of what they require is consistent with any sound definition of secondary education. There is, however, good reason for complaint at the scale of grants offered by the Board in aid of secondary schools. They are quite inadequate in view of the true cost of secondary education, where the latter is provided in full conformity with the Board's own definition of a secondary school. And it is therefore to be hoped that at an early date the Government may be induced to bring its monetary contributions more into keeping with its new educational doctrine,—a remark which applies as well to elementary as to secondary education.

But the new regulations raise another and very serious question in the case of those schools, which, though at present earning " secondary school grants " have been from the first and with deliberate intention " higher grade schools " rather than secondary schools in the strict and more exacting sense of the latter words. The " higher grade school " is meant, and rightly meant, to meet the needs of large numbers of children who cannot stay on at school until they are sixteen years of age. The needs of those children ought to be generously met. It is of high importance, in the interests of national efficiency, that Higher Grade Schools should be encouraged and liberally helped. Their courses of study should be so planned as to enable those pupils, who will enter upon the practical duties of life in their fifteenth year or shortly afterwards, to gain, while still at school, the knowledge, the discipline and the aspirations which will stand them in good stead in after-years and fit them for the responsibilities of citizenship. But no school can effectively meet, at one and the same time, the educational needs both of those pupils who intend

to go into practical life in their fifteenth year and of those who are prepared to avail themselves of a course of secondary education, definitely planned as an intellectual discipline extending over at least the four years between the ages of twelve and sixteen. Hitherto, through not having clearly faced the educational problem involved, some schools have rather vaguely endeavoured to accomplish both of these diverse tasks. But now we have come to the parting of the ways. Hence it has become necessary for every school (and especially for a school which is on the border-line between the Higher Grade and the Secondary Schools) to decide whether it will be wise for it in future to concentrate its efforts upon the needs of pupils who are likely to stay at school up to about fifteen or upon the needs of those who will certainly stay from their twelfth to at least their sixteenth birthday. In each case, the decision should be reached deliberately after a careful consideration of local needs. And the first question to be asked is what proportion of the pupils in the given school do actually stay on through the secondary school course from twelve to sixteen. If that proportion is small, while the number of those requiring a "higher-grade school" training is relatively large, it would be reasonable, instead of sacrificing the interests of the latter, to make their needs the main business of the school and to provide elsewhere for the more limited, though highly important, category of pupils who will go through the real secondary school course.

Now, in the case of the Huddersfield College Higher Grade School, comparatively few of the pupils stay on throughout the four years' secondary school course. The following table gives the numbers who entered the secondary school course in September, 1901, 1902 and 1903 respectively, and indicate how many remained at each of the selected dates.*

COLLEGE HIGHER GRADE SCHOOL [SECONDARY SCHOOL COURSE.]

		Boys.		Girls.		Total.
First year	1901 Sept.	80	..	77	..	157
	1902 June 30th. †	45	..	43	..	88
Second year	1902 Sept.	27	..	26	..	53
	1903 June 30th ..	15	..	15	..	30
Third year	1903 Sept.	10	..	5	..	15
	1904 June 30th ..	7	..	4	..	11
Fourth year	1904 Sept.	6	..	3	..	9

* It should be mentioned that in the years 1901–3 the numbers of pupils entering upon the second and third years' courses were below the average.

† Though each year of the secondary school course ends officially on July 31st, it has seemed better to take June 30th as the date for the purpose of this table, because the Government grant for the year can be obtained in respect of all pupils who have not left before the end of June. The fact that so large a number of pupils (in some cases more than one-third) leave in the course of the first year of the secondary school course entails, under existing arrangements, a considerable loss of Government grant.

		Boys.		Girls.		Total.
First year	1902 Sept.	78	..	77	..	155
	1903 June 30th. .	44	..	53	..	97
Second year	1903 Sept.	22	..	23	..	45
	1904 June 30th ..	12	..	18	..	30
Third year	1904 Sept.	12	..	7	..	19
First year	1903 Sept.	74	..	70	..	144
	1904 June 30th ..	59	..	58	..	117
Second year	1904 Sept.	35	..	43	..	78

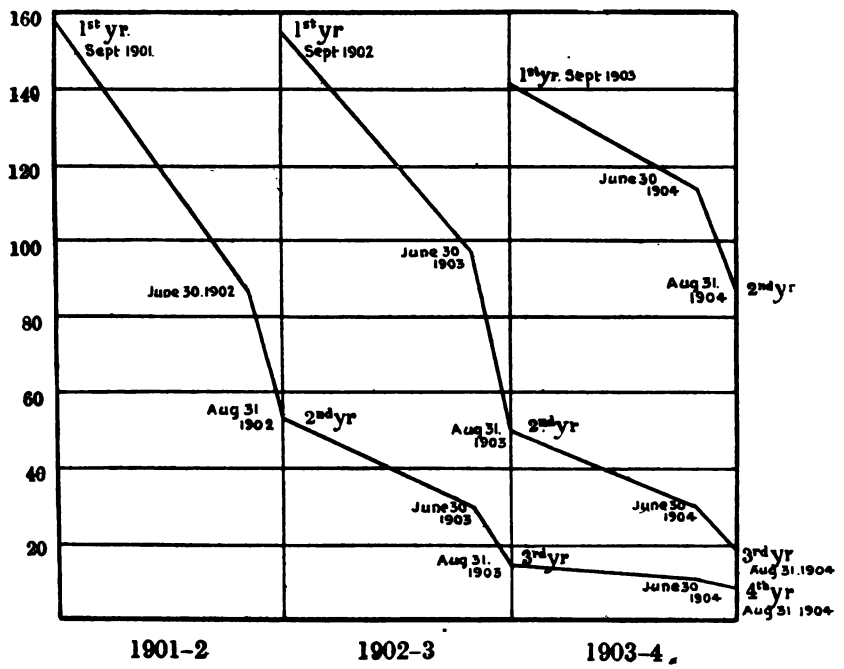
There are also two scholars remaining for a fifth year.

The shrinkage in the numbers of pupils at different points in the secondary school course is shown in the following diagram. The lines which lie downward across the diagram from left to right show by their rapid descent, in respect of each yearly batch of new pupils, how large a number of those who begin the secondary school course leave the school before they have completed it.

HUDDERSFIELD COLLEGE HIGHER GRADE SCHOOL.

[SECONDARY SCHOOL COURSE.]

Diagram showing the numbers entering the Secondary School Course at the beginning of the last three school years and the numbers remaining on June 30th and August 31st of each year. On those leaving before June 30th in any year no Government grant is paid.



It will be seen that at the beginning of each of the three years illustrated, between 140 and 160 pupils entered the secondary school course. By the 30th of the following June, a number of these (varying from 70 to 30) had departed without completing a single year of instruction and without earning any grant for the school. Between June 30th and the end of the year the lines become more perpendicular, indicating a rapid fall in numbers What happens in the first year of the course is repeated in the second and again in the third. By the beginning of that year barely an eighth of the original number of students survives.

The majority of the boys who leave during the first two years of the secondary school course become clerks or mechanics ; a few go to the mills. Of the girls, a large number become pupil teachers. For some years the College Higher Grade School has supplied practically all the pupil teachers in the provided schools of the Borough. Of those boys who leave during the third and fourth years, a good many become skilled artisans, and some enter for the Civil Service Second Division Clerkships. Some of the third and fourth year girls become elementary school teachers, matriculating and passing on to the Training Colleges either direct or after a short period of service as pupil teachers.

I had several opportunities of seeing the very thorough and zealous work which is being done at the College Higher Grade School by the Headmaster, Mr. R. Montgomery, B.A., and his staff. For none of the educational difficulties mentioned in this section of my report must blame be imputed to him or to his assistants. Mr. Montgomery's work is inspired by a real love for education. The order of the school struck me as being perfect. The experimental work in Physics, under the care of Mr. Schofield, should be especially mentioned because it presents features of remarkable interest and of high educational value. In Chapter V. (3) of this report, will be found suggestions in regard to the organisation and curriculum of the school, and for the improvement of its accommodation and equipment. Among other things, the school needs a good Reference Library (see Chapter XII. below).

(3) The Day School of Science at the Technical College.

At the time of my visit the Day School of Science in the Technical College was conducted under the regulations of the Board of Education as a school of the old Division A type. It was founded in September, 1895, and during the first year of its existence there were in attendance 92 boys and girls, and grant was paid upon 64. The College Higher Grade School, with a parallel curriculum and no fee, is undoubtedly in part responsible

for the gradual dwindling of the Technical College School, in which a fee of 50/- per annum is charged. When I saw the school there were 13 boys and 25 girls in it. Of these, 13 were West Riding County Council Scholars. and almost all the others came from the County area. The average age of the pupils was 13.3 years and none of them were in the third or fourth year of the course. Nine of the boys and ten of the girls were in its first year. The curriculum includes a very large amount of Mathematics and Science. French is studied by all pupils, and Latin and German are alternative subjects. At the time of my visit twenty-four of the pupils were taking Latin, and the rest German. The girls take needlework and dressmaking, while the boys are doing wood and metal-work. The pupils have the use of the College dining-room, reading-room and gymnasium, and also of the two common rooms. There is a mid-day break of two hours, and at that time the want of a playground is severely felt. It is not right that boys and girls should be left during this interval to wander about the streets, yet there appears to be no alternative if they are to get any fresh air. In those of the London Polytechnics to which day schools are attached, it has been found necessary to appoint separate head masters, and small staffs of assistant teachers who are employed solely in day-school work, while the Polytechnic staffs assist in teaching special subjects. The expense of doing this at the Huddersfield school for so small a number of pupils would of course be prohibitive. At the same time the Committee cannot expect to have a successful school for boys and girls on any other terms. The staff of the College is appointed mainly for the specialised teaching of adults. The education of young children is quite another affair, and demands quite other gifts in the teacher. Moreover, the giving of instruction, which may be the main function of the teacher of adults, is but a small part of the task with which a teacher of children has to grapple. That task can only be successfully accomplished by teachers whose main interests and whose main concern are the boys and girls under their charge. That cannot, under present conditions, be the case at the school we are considering, and I am convinced that the morale and discipline of the school suffer in consequence.

The new regulations which have been issued by the Board of Education for the conduct of secondary schools; make it necessary for the Committee to consider what should be the future of the the Technical College School of Science. If the School is to continue to earn its present government grant, it can only do so upon more severe conditions than heretofore, and these new conditions may in turn well be made even more drastic in the future. The present curriculum of the school is weak on the side of the Humanities. To

bring the school up to the level of educational efficiency which will be required in future would entail a considerable increase in the present annual cost of maintenance. And though at first sight it may seem an economical arrangement to use part of the Technical College buildings as a secondary school in the day-time, the premises are not really suitable for the purpose. A play-ground would have to be provided in order that the pupils might receive the physical education which the Board of Education rightly regards as an essential part of a secondary school training. Moreover, it is not certain that the Committee could count with confidence on the long continuance of the present grants because the new Regulations state that " if a secondary school, after it has been working for a sufficient time under the Board's Regulations to allow the normal development of the higher forms or classes, fails to carry an adequate proportion of its scholars up to the third or fourth year of the complete course, it will cease to receive grants or to be recognised by the Board as a secondary school." Possibly the number of pupils taking the complete course at the Technical College School of Science might increase in future, but at present there is little sign of this.

It is doubtful too whether the secondary day school at present conducted within its walls furthers the true interests of the Technical College. For the sake of the real work of the College, it is desirable that the minimum age limit of the students should be raised to sixteen years. It is important that the Technical College should stand out clearly in the eye of the citizens as a powerful factor in the maintenance and improvement of the industries upon which the prosperity of the Borough rests. Whatever does not directly contribute to this main end ; whatever dissipates the energy which should be concentrated upon this central part of the task ; whatever tends to make the public think of the College as a boys' and girls' school rather than as an institution for the technical training of students of maturer age, may fairly be regarded as being at present an undesirable addition to the work of the College, and as an encumbrance which, for the time at any rate, it would be wise to put aside.

(4) The Fartown Grammar School.

Fartown Grammar School was erected in 1770 by public subscription on a piece of land enclosed from the Commons of Huddersfield. The premises were enlarged in 1882. There is no endowment beyond the school buildings and a ground rent of between £15 and £16 per annum. The pupils are drawn almost entirely from the Borough area ; 50 per cent. live within a mile of the school.

The school has hitherto received a grant from the Board of Education for Science and Art Classes which has averaged about £23 per annum. This grant will be withdrawn after the present year. The school is not under a scheme of the Charity Commissioners. The Indenture, which is the instrument of its foundation, requires that the school " be used as a school in connection with the Church of England in the ecclesiastical district of St. John's, Huddersfield." The Trustees or Managers are the Vicar of Huddersfield, *ex-officio*, the Vicar of St. John's, Huddersfield, *ex-officio*, and Messrs. C. J. Armitage, J.P., and T. P. Crosland, J.P.

At the time of my visit there were two boarders; a couple of day boys came from Holmfirth, and a girl came from Mirfield. The number and classification of the scholars in July of this year was as follows :—

	Boys.		Girls.
Higher Senior	7	..	6
Lower Senior	16	..	12
Higher Junior	24	..	7
Lower Junior	9	..	9
Transition	10	..	12
Preparatory	8	..	11
	74		57

Between one-fifth and one-sixth of the pupils are over 14 years of age. The average age of the Lower Senior Class is about 13½ years, of the Higher Junior Class 12 years, and of the Lower Junior Class 10 years. The ages of the Preparatory Class children range from 5 to 7. A few of the boys pass on from Fartown Grammar School to other secondary schools. In very few cases is the instruction in Latin or French or Mathematics carried beyond what would be expected In the second year of the four years' secondary school course. Botany is taught in the higher classes, but there are no facilities for practical laboratory work in Science.

About one-third of the pupils are drawn from public elementary schools. Of the remainder two-thirds have previously been taught at home and the rest have been in private schools. Fartown is a middle-class residential district, inhabited largely by commercial travellers, small merchants and tradespeople, and the school evidently meets a want. After leaving school the boys usually go into offices. A few enter their father's businesses, and a few pass on to the minor professions.

The fees charged for day scholars are from £3 3s. to £6 per annum. Shorthand, French and drawing are extras. Boarders pay from 24 to

30 guineas per year, in addition to tuition fees. Terminal examinations are conducted by the Headmaster. Senior scholars are entered for the College of Preceptors Examinations and the Cambridge University Local Examinations.

The school premises, in addition to the Headmaster's private house, are upon two floors, the top floor being reserved for the girls and preparatory class. On each floor there is one large and one small room. In the last 21 years some £700 have been spent upon the buildings, which, though not up to modern requirements, might very well serve for a small school.

Two Holroyd scholarships of the annual value of £6 are offered, usually in September of each year, to boys attending elementary schools in the Borough of Huddersfield. They are tenable at Fartown Grammar School for a period of two years, but may be renewed for a third year by permission of the Trustees of the School and Holroyd's Charity. They entitle the holder to exemption from tuition fees in the ordinary course of instruction at the school. Candidates must be under twelve years of age on the date of the examination, and have reached the Fifth Standard.

The Headmaster and Headmistress, Mr. and Mrs. Yates, are held in deserved respect in Huddersfield for the careful attention which they bestow upon the pupils committed to their charge. Both of them hold certificates as Elementary School Teachers under the Board of Education. Mr. Yates, who has been headmaster for 21 years, was previously headmaster of Rastrick and Brighouse British School for boys. He held a Whitworth Scholarship and an entrance exhibition in Classics and Mathematics at Owens' College, Manchester. Mr. and Mrs. Yates are helped by one assistant master and two assistant mistresses. There are also two student teachers and two visiting teachers.

(5) The Longwood Grammar School.

This school was founded in 1731. An old slab on the school wall bears the following inscription : " The gift of Dorothy, the wife of Mr. William Walker. Non ignara mali miseris succurrere disco." The school is conducted under a Scheme of the Charity Commissioners, 1878. The Governing Body consists of nine persons, of whom three are ex-officio, three co-optative, and three representative governors. Of the representative governors, one (Mr. Arthur Broadbent, chairman of the Governing Body) is appointed by the County Borough Council of Huddersfield ; one by the Urban District Council of Golcar, and one by the inhabitant ratepayers of Milnsbridge. The endowment of the school (December 31st, 1902)

consisted of the freehold school buildings with master's house, three plots of land let on long lease and various capital sums including the Horsfall Scholarship Fund. The total income for 1902 was £82 2s. 3d. The income was applied to the general purposes of the school, the Governors maintaining six free foundation scholars. By the Scheme, the religious instruction given in the school is required to be in accordance with the doctrines of the Church of England. The religious freedom of the pupils is protected by a Conscience Clause. In April, 1880, three months after the opening of the school under the new Scheme, the Governors passed the following resolution : " that teaching from the Church Catechism be the Lord's Prayer and Ten Commandments only." The pupils usually take the Scripture Syllabus of the Cambridge Local Examinations. The school building consists of a large schoolroom and two classrooms, one of which is used for Chemistry and Physics. In 1903 the Board of Education called the attention of the Governors to the fact that " there is no opportunity for practical work in Science by the students, owing to the want of a laboratory." There is no cloakroom for the boys. The offices for boys and girls are of an old-fashioned type. The playground is three-quarters of an acre in extent. In November, 1903, there were 79 pupils in the school (52 boys and 27 girls). Only 16 of these (9 boys and 7 girls) were over 14 years of age. None were over 16. Thirty-nine of the pupils resided outside the Borough. The minimum age of admission to the school is 7 years. Of the 79 pupils in the school, 60 had previously been at public elementary schools, 5 at private schools, 3 at secondary schools, and 11 had not previously been from home. The fees vary from £3 to £6 per annum ; books and stationery are extras. An annual examination of the school is held by an inspector appointed by the Governors. Individual pupils are sent in for the Cambridge University Local Examinations, and the Examinations of the College of Preceptors. The Headmaster, Mr. J. E. Bottom, holds an Elementary School Teacher's certificate under the Board of Education. He has been for 33 years in the service of the Longwood Grammar School. There are two assistant teachers and three visiting teachers. In 1902, the school received from the Board of Education for Science and Art Classes, £57 2s. Owing to changes in the Regulations of the Board, it is understood that these grants will not be continued in future. For some years the school has received from the West Riding County Council £30 a year, in return for which the Council has had at its disposal three school places. In September, 1903, notice was received from the County Council, that " pending the reorganisation of secondary education in the County Borough of Huddersfield by the new Local Authority, the three county

scholarships would not be available at the Longwood Grammar School." In February, 1904, the West Riding County Council notified the Governors that they were considering a Report upon the Secondary Education of the area, and would for the present session continue the £30 grant on the same terms as before.

CHAPTER IV.

The Private Secondary Schools.

The list of Private Schools given in the Year Book of the Education Committee contains thirteen schools, of which one had no pupil at the beginning of the year. It is a little difficult to classify these schools. Some are, beyond doubt, strictly " secondary " in character. Others lie either in or near the border region between secondary and elementary education. The distinction between a private secondary and a private elementary school—to try and sum up roughly in a sentence an order of things which is at once social and historical—seems to consist in this. The former in its curriculum and in its methods has regard to an education which, if pursued to the end, whether in one school or in a succession of schools, will carry the pupil well on to his or her sixteenth or seventeenth year. The latter is merely an alternative provided to meet the wishes of parents whose ideas of education, whether as regards range of subjects or degree of attainment, do not go beyond, and often fall below, what is possible in a public elementary school.

It is interesting to note that three of the schools of whose secondary character there can be no doubt are all descendants of the schools under the old Huddersfield College Company. Mr. Harold Wild, B.A., now Principal of Huddersfield College School, was the senior assistant master in Huddersfield College at the time of its dissolution in 1893. The Misses Brier, co-Principals of the High School, Greenhead Park, both had experience in the Girls' College. And Mr. A. E. Jackson, Principal of Huddersfield College Modern School, was at one time a master in Huddersfield College.

The number of boys in Mr. Wild's school usually varies between 50 and 60. Some of the boys remain until they go into business or enter a profession or the University, but the chief work of the school is to prepare boys for entrance to the various Public Schools (*e.g.* Charterhouse, Rugby, Marlborough, &c.) and as the entrance age to these schools is about 14, most of the boys in the school are under that age. The premises were partly built and partly adapted for school purposes by the Directors of the College Company, by whom they were occupied previous to 1893. So far as the boys under 14

are concerned, the curriculum of the school is that usual in schools preparatory to the Public Schools. Arrangements are made for practical chemistry teaching; a rather unusual feature in schools of this type. Mr. Wild has three assistants, in addition to visiting teachers for chemistry, French and shorthand. The school is fortunate in having the old Huddersfield College field for its organised games, upon which considerable stress is laid.

The High School, Greenhead Park, is conducted in three private houses which have been adapted for school purposes, the preparatory and kindergarten department being entirely separate from the High School proper. There is accommodation for about 130 pupils including 20 boarders. At the time of my visit in July there were 93 pupils in the school. The majority of the pupils come from other private schools or have been previously taught at home. The Principals have the assistance of five mistresses in addition to visiting teachers. The curriculum of the school follows High School lines: classics are taught, but preference is given to modern languages, French and German being as a rule taken before Latin and Greek. The games are regarded as an essential part of the school curriculum and all girls are expected to take part in them.

In Mr. Jackson's school on West Hill, there were 21 boys at the time it was visited. Mr. Jackson limits his numbers to 25 as a maximum. The bulk of the boys pass on between the ages of 12 and 14 to boarding schools.

Efficient private schools have for many generations past rendered good service to England. They have been the natural outcome of those deep-set differences in social and ethical tradition which have characterised our national life. In times of intellectual or political conflict they have helped to preserve freedom of outlook. In many cases they have been the source of improvements in methods of teaching, and of reforms in school-studies. There is reason to think that they may well render similar service in the future. Inefficient private schools, on the other hand, have clogged our educational advance. They have helped to perpetuate petty social distinctions. They have obstructed the growth of unity in educational efforts. It seems desirable on all grounds that more should be done than heretofore to enable parents to discriminate between efficient and inefficient private schools. The present time of reorganisation in English education offers an opportunity for drawing the private schools into a somewhat closer relation to the local authority which is charged with the duty of considering all the educational needs of the area. What is needed is not suppression of private initiative in education but wise encouragement of efficient private effort. It is desirable

that the local authority and the private schools should both pull one way in their endeavours to raise the level of instruction in the schools and to kindle an enthusiasm for education among the inhabitants of the Borough. To secure this end, it would be necessary for the Committee to assure itself from time to time that the work of the various educational institutions within its area was proceeding satisfactorily. The only sound test of efficiency in a school is inspection by independent experts : an inspection not confined merely to the curriculum, but taking into consideration the administration of the school, the adequacy of the premises, and every other factor which makes for efficiency or the reverse. Taken by themselves, the results of outside examinations may afford but an imperfect guarantee, and may even be perverted to very uneducational ends. Under stress of competition, and in order that the school may stand well in the public eye, the ideal of education may be almost insensibly degraded to mere examination cram. The gaining of paper certificates may become the highest aim of both teachers and taught.

Such independent inspection as would in any case be necessary to guarantee the continued efficiency of the aided public schools might at very small extra cost be extended to private schools. I would therefore suggest that the Committee should offer inspection free of charge to such private schools as were willing to submit to it. The reports of the inspectors should of course be circulated to the Committee for its private information, and should not be published save by agreement between the principal of the school and the Committee. Such schools as satisfied the inspectors that they were reasonably efficient, should be admitted to the Municipal Educational Directory upon exactly the same terms as the other institutions under the Committee's jurisdiction. Further, the pupils of these efficient schools should be allowed to compete for all scholarships, bursaries or other aids to higher education which the Committee may see fit to offer.

It would be expedient that a complete review of all the educational resources of the Borough should be made once every four or five years. In each of the intervening years there might be a more limited inspection : one side only of the life of the schools being carefully examined. In this way the connexion between the Education Committee and the schools would be continuous, and the latter, both public and private, would be able annually to review their own methods point by point.

CHAPTER V.

Suggestions and Recommendations for the improvement of Secondary Education in Huddersfield.

(1) Development of the Almondbury Grammar school

One of the capital needs of Huddersfield at the present time is a thoroughly good public secondary school for boys on a high plane of intellectual efficiency. I doubt whether in the whole of Germany, Switzerland, France, Holland, Denmark or Norway, or in the progressive parts of the United States of America, any town of equal importance to Huddersfield could be found so ill-equipped in regard to boys' public secondary education. It is only the great native ability which marks the population of Huddersfield that has enabled it so far to hold its own in spite of this immense disadvantage. But the peril of leaving things as they are increases year by year. All over the world the intellectual standard is rising. No vigorous community can hope to keep up in the race unless it provides its youth with first-rate educational opportunities. In Huddersfield things at the present time are relatively worse than they were thirty years ago. For many years the Huddersfield College and the Huddersfield Collegiate School did an excellent work. Measured by the standards of the time, the former especially was a vigorous and effective institution. During the course of my inquiry I have been led increasingly to regret the unhappy combination of circumstances which caused its disappearance. Is it too much to hope that the time has at last come when Huddersfield will once more be equipped with a first-rate public secondary school for boys ?

As I carried out the task which the Committee entrusted to me, I was led in turn to three successive judgments upon this part of the problem which at the present time confronts the Education Authority of Huddersfield. In the first place I was strongly impressed by the possibility of developing the Almondbury Grammar School. No stranger to the Borough can see for the first time the Almondbury Grammar School without being delighted by the beauty of its situation and impressed by its peculiar fitness to supply many of

those influences and associations which count for much in the education of boys. Instead of being in a noisy town, it stands in a beautiful country, commanding an extensive prospect of characteristic charm. Its buildings are typical of much that is best in the architecture which distinguished the West Riding in the Seventeenth Century. Almondbury itself is full of historical associations. Its Grammar School is a happy illustration of our English habit of combining ancient wont with modern developments. Under the present scheme of the Charity Commissioners, which has the force of an Act of Parliament, "no person is disqualified for being a master in the school by reason only of his not being or not intending to be in holy orders." No religious test is imposed upon any governor or master of the school. The headmaster is not required to be a member of the Church of England; the only condition is that he shall be a graduate of some University of the United Kingdom. The religious freedom of every pupil in the school is carefully protected by a stringent conscience clause. The religious instruction given in the school is required by the present Scheme to be in accordance with the doctrines of the Church of England, but no pupil is compelled to receive such instruction. In actual practice the religious instruction given in the school takes the form of studying the book or books of the Bible prescribed from time to time for the various public examinations. The arrangements which are in force are similar to those which work smoothly in other parts of the country without causing any religious difficulty among pupils drawn from families belonging to a variety of denominations. The situation of the school affords convenient opportunity for that sound physical training which is a necessary part of a good education, and for those organised school games which, if not pressed to excess, are one of the best means of teaching *esprit de corps*. Nor does the stranger feel that the school is too remote from the middle of Huddersfield to be a fit centre for the higher secondary education of its boys. The admirable tram service of the Borough has brought the school within sufficiently easy reach of the homes of the boys who would attend it. Many flourishing secondary schools elsewhere are situated at a much greater distance from the homes of great numbers of their pupils. Taking all these considerations into account, it seemed to me desirable that the Borough should avail itself of the Huddersfield Corporation Act, 1902, and out of its resources develop the Almondbury Grammar School into a first-rate secondary school for the boys of Huddersfield.

As, however, my inquiry proceeded, I became more deeply impressed by the danger incurred by Huddersfield through the bareness of its present provision of boys' secondary education. If the educational equipment of the Borough were comparable to that which exists

to day in every progressive industrial town in Germany and America, there would be in Huddersfield a boys' public secondary school of high merit and widely recognised distinction, and attended by hundreds of pupils. The more closely the industrial future of the Borough is examined, the less escape does there seem to be from the conclusion that, unless steps are quickly taken to remove the present educational disabilities of Huddersfield, the outlook is black indeed. The second conclusion therefore to which I found myself reluctantly driven was that the Borough needed a much larger secondary school for boys than could be conveniently accommodated at Almondbury, where there is at present only room for about a hundred pupils. It followed from this conclusion that, as the Borough could not be expected to maintain two higher secondary schools, the Almondbury Grammar School must be left to struggle on as best it might, against the ever stronger competition of a new foundation in Huddersfield itself.

But, at the close of my inquiry, my thoughts had retraced their steps to my first conclusion. So much must be done, and done quickly, for educational improvement in Huddersfield, if the Borough is to hold its own in the intense competition of the future, that it would be unwarrantable to suggest any plan entailing avoidable expense in its execution. Vigorous educational reform will, I am convinced, be the best possible municipal investment for Huddersfield ; but, at the same time, such reform will entail great expenditure. Three things stand out as urgently requiring immediate attention : first, the reorganisation of the Technical College ; second, the improvement of the boys' higher secondary education ; and third, the establishment of a girls' high school. It would be prudent therefore, in regard to the second of these things, to adopt a course which, while securing efficiency, would involve the least expenditure. This points clearly in the direction of developing the Almondbury Grammar School into the higher boys' secondary school for the Borough.

This conclusion is reinforced by other considerations. Every secondary school, however well equipped, must slowly win its way to public confidence. A successful system of education cannot be improvised or created by a mere stroke of the pen. It must grow. It must prove its value and slowly gain the trust of its public What is really great in higher education in Germany is not so much the teaching in the schools, though that is good, as the attitude of mind of the parents, and of the employers, towards the question of education. They have confidence in it. They know what great things it has done for their country. They know that it has helped to make their nation great. While they realise that the deepest sources of Germany's educational strength lie far back, in devotion

to high ideals and in the self-sacrifice and self-denial of generations of teachers, they also see on all sides of them abundant proofs that, in the long run, good education pays. Again, the finest thing in American education is not the costliness of the buildings or the excellence of their equipment, but the hearty belief of the people, young and old, in the value of education. That this belief in education will gain a firm hold on the English mind, I, for one, am convinced, provided that at this crisis in our national development we boldly decide to rest content with nothing short of the best education in the world. But would it be candid to maintain that at the present time England believes in education as America, Germany and Japan believe in it ? Must we not make our account with the fact that in England for many years to come the advocates of educational reform will have an uphill fight ? Must we not also make up our minds that the number of boys attending our higher secondary schools will for some years to come be small, when compared with the corresponding numbers in Germany and America ? Must we not expect a somewhat gradual change in the attitude of our employers of labour towards secondary education ? Must we not therefore refrain from any too sanguine expectation of the support which the parents of Huddersfield are likely to accord during the next few years to a more efficient type of public secondary school ?

For these reasons I would suggest to the Committee that the more prudent course in the present circumstances will be to develop the Almondbury Grammar School as the centre of higher education for boys in Huddersfield. To this end, the first necessary step would be the careful selection of four assistant masters of high intellectual standing, educational experience and skill in the teaching of boys. If I am so fortunate as to carry with me the experienced judgment of members of the Committee in these conclusions, I would suggest that no pains should be spared in making the right choice of these assistant masters. The right men might not easily be found, but success would largely depend. on their selection, and would almost certainly be endangered by a mistaken choice. What is wanted is a group of men who realise the greatness of the opportunity and would come to Huddersfield with the definite purpose of making a great success of their new work. They should be men who know and like the North of England, who appreciate the vigour of its character, the ability of its population and its scorn for mere academic refinements. They should not be men whose one idea would be to set up in Huddersfield a pale imitation of one of the great public schools. What Huddersfield wants is a bold new experiment in secondary education, combined with insistence upon high intellectual standards. Four things in particular, such a school as is here proposed

should try to do: (1) to make the boys admire beautiful things both in literature and in art; (2) to develope in them a sense of moral responsibility for the welfare of the community in which they live; (3) to teach them to observe accurately and to reason exactly; and (4) to foster among them a desire to find out things for themselves. In the Huddersfield school, boys and masters alike should feel that they were charged with a great intellectual task, that they had been entrusted by the community with the responsible duty of winning for the higher secondary school in Huddersfield a success which should command the confidence of the town and the respect alike of scholars and of men of business, Pedantry or social exclusiveness would be fatal to the educational efficiency of the new school. In looking for such a group of assistant masters, the Education Committee might well take into confidence some of the experienced inspectors of the Board of Education and tutors at the Universities. The essential thing would be to find the right men, because not every clever scholar would prove to be the right man for Huddersfield. They should be offered good salaries, according to their experience and age. In each case, their salaries should rise by regular annual increments up to a maximum which would enable them to hold in the Borough the position appropriate to their office. The classes in the school should be small, so that every boy would receive individual attention. On two features in the curriculum, especial stress should be laid, first on mathematics, and secondly, on training in the use of the mother tongue. The West Riding is distinguished by its mathematical ability, and it is through first-rate mathematical training that much of its best intellectual development will probably be gained. Not less essential, however, is skilful training in the mother tongue. The boys of the West Riding are weak in the faculty of expression. Moreover, it is the experience of teachers in the West Riding that the boys need to be taught how to use their imagination. It is not that their imagination is sluggish, but rather that it lies undeveloped. For various reasons there is not in the intellectual conditions of the West Riding that stimulus to the imagination which operates so powerfully in some other parts of the kingdom. But a right use of the imagination would be one of the most valuable assets, from a civic and business point of view, which the West Riding could acquire. The trained use of the imagination is one of the most powerful factors in social improvement, in the development of industrial processes, and in the furtherance of business enterprise. For these reasons, I would urge upon the Committee the desirability of paying particular attention in the curriculum of the boys' secondary school to training in English and to training in mathematics. In the third place, it seems desirable that the boys in the higher secondary school should

be taught to use their hands as well as their tongues and their memories. Neglect of the training of the hand leaves "wisdom at one entrance quite shut out." Manual instruction, graded in an educational course and carefully connected with the teaching of art as well as with the teaching of mathematics, should be a necessary part of certain stages of the curriculum.

The first business of the school would be to furnish a good general education up to the age of sixteen. Its curriculum should be based upon the Humanities, with careful training in mathematics and a due admixture of natural science. In the general course, through which all the pupils would pass, at least one modern language should be thoroughly well taught, according to the best modern methods. The boys should learn to speak the language with a correct accent, to write it with accurate grammar, and to translate it with intelligence, fluency and good taste. They should be taught to enter with sympathy into the history, the literature and the social conditions of the nation whose language they were learning. One chief point to be kept in view in this instruction would be the inculcation of an intelligent sympathy with another great nation. The second language besides English to be taught to all boys in this part of the school might be either a second modern language or Latin. Experience would show how far, even within the period of time assigned to the general course, some modification of studies should be permitted in the case of boys who showed marked aptitude for one or other branch of learning. For example, careful provision should be made for boys with a natural bent for classical studies. From the age of twelve onwards, teaching should be provided of a kind appropriate to their needs, and such as would qualify them to obtain in due time high academic honours in classical scholarship. Further, it would be desirable to allow wide latitude in choice of studies and due opportunity for concentration of interests, in the case of boys staying on at the school beyond the age of sixteen.

Should these suggestions approve themselves to the judgment of the Committee, it would follow that of the four assistant masters, one should be specially qualified as a classical scholar and as a teacher of history and geography; the second should be specially qualified as a teacher of mathematics; the third as a teacher of modern languages (including English); and the fourth as a teacher of natural science. In each subject Huddersfield should have the best teaching that could be got in England. Each man should really love his subject, because a boy "catches" a love for study just as he catches the measles, *i.e.*, from somebody who has it himself. Intellectual interests are largely a matter of infection. A dull man cannot kindle them.

It would be found that, in such a secondary school for boys as I have been describing, the cost of maintenance per pupil would amount to about £20 per head, rising to £25 per annum. The reason for this cost would lie partly in the small numbers which would be all that the school could accommodate. In proportion to its size, a small school is more costly per head than a large school.

An amendment of the present Scheme would be necessary if the Almondbury Grammar School were made the boys' public secondary school for Huddersfield. The representation of the Huddersfield County Borough Council on the Governing Body would naturally have to be increased so that the authority of the Council in the deliberations of the Governing Body should be commensurate with the annual contribution which the Council might make in aid of the maintenance of the school.

Were these changes made, I am persuaded that the school could render very valuable service to the civic and industrial interests of Huddersfield and district. The real question to be faced is the financial one. Will the results be worth the outlay ? For my own part, I am strongly of opinion that no expenditure would prove a better investment to the community of Huddersfield, though the returns would in the nature of things be indirect. The money spent on the school would not be lost ; it would be a remunerative investment. Indeed, my inquiry has convinced me that it is an investment which Huddersfield ought in its own interests, and even at present sacrifice, to make.

Turning to the subject of finance, mention should be made of the great liberality with which Mr. William Brooke and Alderman J. A. Brooke have supported the Almondbury School, the interest on a large part of the school debt having been paid out of their pockets. In many other ways, the school owes much to the unfailing support and interest of the Brooke family.

For twenty years, 1881 to 1902, £50 per annum was paid from the Almondbury Grammar School foundation to the Huddersfield Technical College. If capitalised, this contribution would more than liquidate the present debt (£1898 6s. 9d.) under which the school labours. Under the Huddersfield Corporation Act, 1902, the clause enforcing the above payment was repealed and it was added that " the Corporation may pay such annual sum as they may think fit to the governors of the Almondbury Grammar School to be applied by them towards its maintenance." At the time of my visit, this clause had not yet been put into operation, but a proposal for an annual grant is about to come before the Council.

Two sources of possible income, other than those derived from borough funds, may here be mentioned. First, the Nettleton Trustees made for many years a grant of £25 to the school. Their contribution is now £155. Could not this grant be increased ?

The West Riding County Council sends scholars to the school, but the grant does not cover the cost of the instruction which the scholars receive. If the school is reorganised on a high plane of efficiency, it will render a valuable service to the whole district. There would seem in that case to be a strong claim upon the County Council for a considerable annual subsidy.

Of the scholarships at present tenable in the school, the six Wormall's scholarships and at least two of the King's scholarships are limited to boys " who are being and have for at least three years been educated at any of the public elementary schools in the ancient parish of Almondbury " (Scheme, section 53) ; the other four King's scholarships are limited to boys " who are and have for not less than three years been residing in the ancient parish of Almondbury with their parents, guardians or near relations." (Scheme, section 53). The maintenance scholarships are limited to boys " who are and have been for not less than three years residing with their parents, guardians or near relations in any part of the ancient parish of Almondbury except the township of Almondbury." (Scheme, section 54). If the school is made the higher secondary school for the Borough, it might be thought desirable to move for an amendment of the scheme, with a view to throwing open the scholarships to boys throughout Huddersfield.

By additions to the premises, accommodation could be provided for a somewhat larger number of pupils. The present buildings of the school also require a certain amount of attention. The offices are by no means up to the modern level of fitness. The classroom next to the Headmaster's study is dark ; a window should be opened in it towards the garden. The masters' common room is dark, and should be lightened by a reflector. Some of the trees at the back of the school might be removed. There is no reference library in the school. A good one is indispensable to its efficiency. There is no art room, but the physics laboratory might be used for that purpose. The covered shed in the playground might be turned into a gymnasium ; the present gymnasium might, with the addition of a window, be converted into a room for manual instruction. The access to the dormitories should be improved to remove risk to boarders in the case of fire. A proper fire-escape should be provided.

In the organisation of the school the greatest care should be taken to make its privileges thoroughly accessible to promising boys

from the public elementary schools. Such boys should enter the school not later than 12 and should remain there for a course of at least four years. An ample number of scholarships giving free education should be provided in connexion with the school. In addition to this, I would suggest that the Education Committee should give maintenance allowances to those boys whose family circumstances required it. In a word, I would urge that in developing the higher secondary education for boys in Huddersfield, the Education Committee should aim at quality, not at quantity, and, secondly, that whatever is provided should be made accessible to every promising boy throughout the borough of Huddersfield.

(2) The Establishment of a Girls' Public High School in Huddersfield.

One of the most serious defects in the educational equipment of Huddersfield is the lack of a first-rate public secondary school for girls. In this respect Huddersfield has lagged behind almost every other town of equal importance in England. The same ill-fortune which has led to there being at the present time no first-rate public secondary school for boys in the Borough has deprived the town of the advantage of having a girls' high school at once under public management and on the highest plane of intellectual efficiency. Thirty years ago, Huddersfield was in the van of progress in regard to the secondary education of girls. The Huddersfield Girls' College, which was a sister school to the Huddersfield College for boys, was, I believe, one of the first unendowed girls' high schools of a public character in England. For a time it was very successful, but when the College was given up, the prospects of the girls' school became over-clouded. The then headmistress, Miss Cheveley, a teacher of great capacity and influence, made a gallant effort to maintain the school as a private undertaking in the hope, unhappily never realised, of finding it possible to bring the school once more under the management of a representative Council of leading citizens. The tradition of the Huddersfield Girls' College has been maintained by Miss Brier, one of its first pupils, now the headmistress of the chief private secondary school for girls in the Borough, and I desire to say how strongly I was impressed not only by her devotion to high educational ideals but by her disinterested regard for the general educational interests of Huddersfield.

My inquiry has however led me to the conclusion that the interests of Huddersfield call at this juncture for a vigorous advance in regard to girls' education, and require the establishment under public

authority of a girls' secondary school on the highest level of excellence, and I would suggest for the consideration of the Committee the desirability of placing such a new public high school for girls in the neighbourhood of Greenhead Park, in a building which, by its dignity and by the beauty of its equipment, would fitly express the importance rightly attached by the citizens to the work of the higher education of girls. If it were possible to secure for the purpose Greenhead Hall, with the large garden and grounds attached to it, a Girls' High School might be established there which, if loyally supported by the leading families of the Borough, would accomplish for Huddersfield what the Girls' High School has done for Wakefield. In spite of the close neighbourhood of the ventilating shafts of the railway tunnel, the balance of advantage seems to turn in favour of establishing the new school in the place suggested above. The Hall, which is now standing empty, is conveniently near the railway station, and therefore easily accessible for girls coming up by train from outlying districts. It is near the tram line, and in easy communication with those parts of the Borough from which a considerable proportion of students might be expected to come. Considerable expenditure would doubtless be necessary in adapting the Hall to the purposes of a school, but the large garden and grounds would provide the kind of surroundings which are particularly desirable in girls' education, and would give opportunities for out-door botanical study and for those organised school games which in moderation are a valuable element in school training and the source of strong *esprit de corps.*

In the Girls' High School the curriculum should include much literature and history; good teaching of the mother tongue and of foreign languages on the best modern methods; provision for instruction in Latin, and in Greek for those girls who might require it; sound training in mathematics; and a course of general elementary science with instruction in botany and in the laws of health. The development of artistic interests and of skill in vocal music and in drawing should receive special care. Part singing is the art of the West Riding. No other part of the country excels to the same degree in this form of artistic expression, and I would urge that in all departments of education in Huddersfield, and not least in the Girls' High School, this great natural gift of the countryside should be carefully developed and trained. No life is really happy unless there runs through it a vein of deep pleasure in some form of art, and the debt which the West Riding of Yorkshire owes to its love for vocal music is incalculably great. Education, therefore, which prepares for life, should give a due place to skilful training in the art most characteristic of the district and most congenial to the talents of the majority of the pupils.

Another matter which should be carefully provided for in the new Girls' High School is the physical training of the girls. It is a matter of extreme importance to avoid mental and physical over-strain for girls, especially during a considerable part of their secondary school life. There should be attached to the school a highly trained teacher of physical exercises, and it should be equipped with an excellent gymnasium and with all the best appliances for physical culture. The headmistress and her colleagues on the staff should pay close regard to the physical condition as well as the intellectual progress of the girls committed to their charge. I am very far from meaning that there should not be a high intellectual standard of attainment in the school. A high level of ability is characteristic of a considerable proportion of the girls in Huddersfield and district, and there is no reason why they should not eminently distinguish themselves in University and other examinations. But it would be deplorable if, through undue concentration of interest on this side of the work, unintentional injury were done to the physique of the growing girls.

The real success of the school would depend in considerable measure on the provision of a good playing field where school games could be conveniently organised for all pupils. Not only from the physical, but also from the moral point of view, this side of education is important. And the leaders of German education are at the present moment paying the closest attention to our English secondary schools, with a view to introducing into their own schools, so far as may be possible, facilities similar to those which our schools provide for learning *esprit de corps* through organised school games. At the same time it is desirable to strike a note of warning in this regard. In their excessive zeal for school games, there is reason to think that some English secondary schools for girls are attaching too much importance to this side of school life. Compulsory participation in school games is not by any means a benefit to all girls. Here, as in physical training, the teacher should carefully discriminate between the needs of different pupils.

It is much to be hoped that the teachers in the Girls' High School at Huddersfield will attach due weight in their ideal of girls' education to the importance, in a woman's life, of the skilful and thorough discharge of domestic duties. A devoted teacher is sometimes too apt to think that the only fit destiny for a clever girl is to become a teacher herself. And there is some danger at times of too little thought being given by the teachers in girls' secondary schools to the question how far during her secondary school life a girl can be prepared for domestic duties as distinct from an academic or professional

career. It would, of course, be absurd to overlook the fact that a considerable proportion of the girls who go to a secondary school intend afterwards to earn their own living in a professional capacity. and that therefore the school must be so equipped as to fit the girls to excel in their professional studies, and to do well at the Universities, At the same time, there will also be in the school a majority of girls whose real vocation lies in the home. An effort should therefore be made to adapt the secondary school-course to meet their needs as well as those of the others. In the long run, it would not be to the advantage of the nation if most of the cleverer girls at school were trained for unmarried professional careers, and if the calling of marriage, with all that it involves, were tacitly assigned to the less clever ones. I am inclined to think that no sweeping changes are needed in the present curricula of our girls' higher secondary schools, but that there is a need in some cases for a slight change in the point of view of the teachers, or, to put it otherwise, for a widening in the range of their educational outlook on the duties of life for which they are preparing their pupils. The influence of the teachers, conveyed in occasional addresses, in private intercourse with the pupils and (what matters even more) in the occasional remarks which most clearly reveal the real current of a teacher's thoughts, should be directed to make the girls realise that a high ideal of home life is one of the most precious of national possessions, and that to apply scientific method to domestic duties and to home organisation is one of the most pressing tasks which lie before the rising generation. If a secondary school were unwittingly to force a number of its cleverest pupils to think habitually of the duties of home life as involving mere drudgery and limitation of intellectual interests, it would be doing active injury to the public interest. At the same time, the chief business of a secondary school, as regards both girls and boys, is to provide a humane education. Whatever else it does, the school must humanise its pupils. That is to say, it must open the windows of the mind. It must teach industry, and thoroughness and accuracy in work. It must make the learners habitually consider the relation between cause and effect in all the problems of life. It must teach them to despise slipshod and ineffective work. It must help them to realise that true happiness in life does not come from the pursuit of amusement or from a constant succession of exciting changes, but from the faithful discharge of duties which, though small in appearance, are really of momentous concern. It must teach them that sunniness of temper, truthfulness of mind, and unselfishness of disposition count for more in the happiness of life than any highly specialised intellectual attainment; and that, above

all, no one can be fortified to bear pain and trouble as they should be borne, without quiet reliance on unseen things.

I trust that those who read this report will not regard me as undervaluing the devoted and admirable work which has been done by the teachers of the girls' secondary schools in England during the last thirty years, if I express regret for the fact that in some cases too much importance has been attached to passing examinations and to attaining successes in studies primarily designed for men. In the nature of things it was to be expected that, in a reaction from the intellectual amateurishness of girls' schools in the old days, there should be some movement towards the opposite extreme. But now there are many signs that public opinion is beginning to demand an opposite change in the ordinary curriculum of girls' secondary schools. Some of the advocates of that change seem to me to be in danger of running, in their turn, into another extreme, and to be inclined to press for the assignment of an undue part of school time to the study of domestic subjects. It is possible that, for a limited number of girls in a secondary school, a somewhat elaborately organised course of domestic science, including cookery, may be desirable towards the end of their school life. But it would be a misfortune if anything were done unduly to reduce the amount of time devoted to the liberal training which is the real purpose of a secondary school. For my own part, I believe that the best way for a girl to learn the science and art of household life is for her to complete at a secondary school a full course of liberal training, and then to go on, possibly after an interval of actual experience at home, to a course of special training in domestic subjects at a school organised for the purpose. Such a course need not be long. The better educated the girl is to start with, the more quickly will she acquire the knowledge which the school of domestic science can give her. She will have leanrt methods of work ; she will have gained the scientific habit of mind ; she will be old enough to grasp the significance of what she has to learn ; and the result will be a much higher level of skill than would have been hers if she had been made to specialise in the subject from an early age. At the same time, in order that she may be prepared to get the best from practical life and from the specialised school of domestic science, it is important that during her secondary school-life she should not have been led, either to disparage domestic work, or unconsciously to assign undue importance to other claims upon her thought and effort.

It is also important that during her secondary school-life a girl should be wisely trained to think soberly, intelligently, and sympathetically of the claims of the community upon each individual

life. Looming ahead of us in England, as in all other civilised countries, are grave social problems. These problems cannot be solved by legislation alone. Still less can they be solved by rapacity and violence. What, above all else, is needed for their solution, is a right attitude of mind on the part of those who enjoy influence in all sections of the community. A good will, an earnest resolve to remove remediable evils in our social condition, and a non-partisan, clear-headed and practical way of getting to the bottom of social questions, are among the things which will do most to help us to improve the social conditions of England. These virtues it should be the aim of every good secondary school, whether for boys or for girls, to cultivate. Seeing what influence women have in all questions affecting the well-being of the nation, it is of high importance that the teachers in our secondary schools for girls should attach due weight to this aspect of their educational work. What is most wanted is the right attitude of mind on the part of the teachers, combined with scientific truthfulness in the observation of facts, absence of sentimentalism in discussing them, and self-preparation for the work of mastering the necessary details of the problem. So far as secondary school work is concerned, there will be no need for elaborate courses on political economy or on social problems. But there *is* need in every secondary school-course for wise reference to these questions and for an effort to give girls the elements of the knowledge necessary to a right judgment upon them.

In all educational progress, the education of girls and the education of boys must advance together. A nation gains far more from what it spends on the education of its boys if at the same time it spends largely and wisely on the better education of its girls. One secret of the immense improvement of American education during the last twenty years has been the influence of well educated American women. Wherever one travels in the progressive parts of the United States, one finds that it is the educated women in the community that have helped forward the cause of education and have co-operated with their husbands and brothers in guiding the less enlightened sections of public opinion to make sacrifices for educational reform. The same thing has in some measure happened in England, but very much still remains for us to do if we are to get throughout the country the full advantage of the help which can be given by great numbers of well educated women.

It is on these grounds that I would urge on the Education Committee the great importance of making without delay a strong effort to secure for Huddersfield the advantage of a good public secondary school for girls, organised on a high plane of efficiency.

The direct and indirect benefit to the Borough resulting from the work of such a school would be very great.

But, if the work of a girls' secondary school is to be really good and profitable to the community, certain conditions must be kept in mind from the first. None but the very best teachers will serve our purpose. The essential things in all education are the personality and the intellectual and moral influence of the teacher. To put up with inferior teachers is not only false economy, but foolish waste. As Mr. Rudyard Kipling makes the Lama say in *Kim*, " Education, if of best sorts, is an excellent thing. If not, of no earthly use." In the Huddersfield girls' secondary school it should be made a fundamental point to secure the best teachers ; best, that is, in point of character, in sympathy with girls and in intellectual and physical equipment for their work. If it means to get and to keep the best teachers (and nothing else will serve its purpose), Huddersfield must be prepared to pay them well. In a school of 200 girls, there should be, without counting visiting teachers, at least one assistant teacher for every 20 girls. This estimate does not include the headmistress. It may well be found that my estimate falls a little short of the mark, and that an even larger proportion of assistant teachers to girls may be desirable. Every class ought to be small, comprising not more than 25 girls at most, except for certain subjects like vocal music in which a larger number of pupils can be profitably be taken together. In all the more difficult intellectual subjects (languages, arithmetic, mathematics, practical science, history and geography), it is absolutely essential that the teacher should be able to pay regard to the individual progress and needs of each girl in the class. All experienced teachers know that girls cannot be taught in the lump. They are at different stages in their work ; they require help in different directions ; and they need both the stimulus which comes from the presence of a considerable number of fellow-learners, and the encouragement of knowing that close attention is being paid to their individual case. In all education there are two opposite dangers : we tend either to neglect the average and backward children in the interests of the most promising ; or we fail to give the best opportunity to the cleverer pupils, because our methods of instruction are specially designed to meet the needs of those of average ability. The true aim is to combine care for the pupil of exceptional promise, with proper regard for those of average powers. This can only be done when the classes are small and when the teachers are highly competent for their work. Moreover, great care should be taken not to overwork the mistresses. In some English secondary schools, the assistant mistresses are over-weighted by masses of written exercises which they have to correct. A teacher's real efficiency depends on physical health,

combined with leisure for thought and for private reading. Hack-work is unfruitful. Education does not mean handing on parcels of knowledge to other people. It means kindling intellectual interests. But no one can kindle intellectual interests in other people who is not himself or herself living a keenly intellectual life. And to lead an intellectual life requires a certain leisure of mind. Moreover it should never be forgotten that each generation of children grows up with a point of view really in advance of that which was normal to the earlier generation. I do not mean that the children could put into words the conclusions to which their point of view would naturally lead them, but unless the teacher is himself constantly advancing in knowledge and in sympathy and in outlook upon facts, he drops insensibly into a state of mind which disqualifies him from handling his subjects in the spirit and from the point of view which are really appropriate to pupils younger than himself. Moreover, in all education the mere beaten track fails to give the stimulus which is necessary for all strenuous learning. It is true that stimulus is only part of the business of education. Searching intellectual discipline is needed as well. Part of the task of school-life is to learn to do thoroughly and at the right time things which are difficult and which one does not want to do. But it is a fatal mistake to limit education to uncongenial task-work. In order that pupils may really advance, they must feel all the time that, in part of their work at any rate, they are breaking new ground, that they are participating in an experiment and that they are on their mettle to accomplish for the honour of the school something which is important and new. Now, unless we have good teachers whose minds are constantly playing upon the subject-matter of their work and who are keeping themselves in keen sympathy with life and with the intellectual and social movements of the time, we can never get that spontaneity of work and elasticity of mind which alone correspond to the needs and temperament of youth.

Another important point to be borne in mind is the necessity of keeping a girls' secondary school thoroughly well equipped with books of reference, with a school library of general literature, with atlases, photographs, globes and other materials for the teaching of history and geography, and with scientific apparatus. Equipment and apparatus are not in themselves the guarantee of good education. The essential thing is to have teachers who can make fit use of them. But good teachers require first-rate equipment, just as a workman needs good tools.

Again, the building in which girls are educated should be airy, commodious and beautiful. Half of the influences of a good education

are unconscious influences and proceed from a right environment. Two of the chief benefits which a community derives from the right kind of girls' education are a greater skill in making life beautiful and the formation of a strong body of opinion opposed to unnecessary and wasteful ugliness in our surroundings.

In order to secure the right kind of teachers for a girls' secondary school, the most prudent course is to offer good salaries. One grave evil in English girls' secondary education at the present time lies in the fact that assistant mistresses cannot look forward to adequate remuneration in middle life, and that during their working years they rarely have any opportunity of saving enough to support themselves when the time comes for their retirement. The effects of these disheartening conditions upon girls' education are certain to be serious. Worried teachers, suffering from anxiety for the future, depress the tone of a school and are unable to throw into their work that buoyancy and cheerfulness which are indispensable factors in true education. An assistant mistress who possesses a University degree, or its equivalent, and has been professionally trained for her work, should start with a minimum initial salary of £110 and should rise by annual increments of £7 10s. to a maximum of at least £200 per annum, where a pension is assured on retirement, or to a maximum of £250 per annum where the teacher is required to save out of income for support during old age. In almost every case a woman ought to give up teaching at 55 years of age. In the case of a second mistress bearing special responsibility in the government of the school, the scale of salary should be higher. The aggregate paid out for salaries in a school of between 200 and 300 pupils will be found to amount to between two-thirds and three-quarters of the total expenditure. Probably the size of school which most combines economy and real educational efficiency is 300, but it is doubtful whether in the case of Huddersfield the number of girls would exceed 200, at any rate for some little time to come. This means that the cost of salaries would be larger in proportion to the total annual maintenance. It will be found that the cost of annual maintenance per pupil for a school of 200 girls will begin at between £15 and £16 per pupil and rise to £18 per pupil, as the staff grows in maturity of experience and length of service. In addition to the cost of maintenance, the Committee would have to provide the building, together with the rent of the ground on which it stands, or the interest on capital expenditure devoted to the purchase, adaptation and fitting of the premises.

(3) The future of the College Higher Grade School, of the Day School of Science at the Technical College, and of the Fartown and Longwood Grammar Schools.

The College Higher Grade School has succeeded in accomplishing the aims of those who established it in 1894 It has extended the course of study pursued in the ordinary elementary schools. It has carried on to a further stage of instruction than they would otherwise have received large numbers of boys and girls from all parts of the Borough. In the words used at the opening of the school in December, 1894, by Mr. Acland, then Vice-President of the Committee of Council on Education, "it is the true and appropriate crown" of the work of the elementary schools.

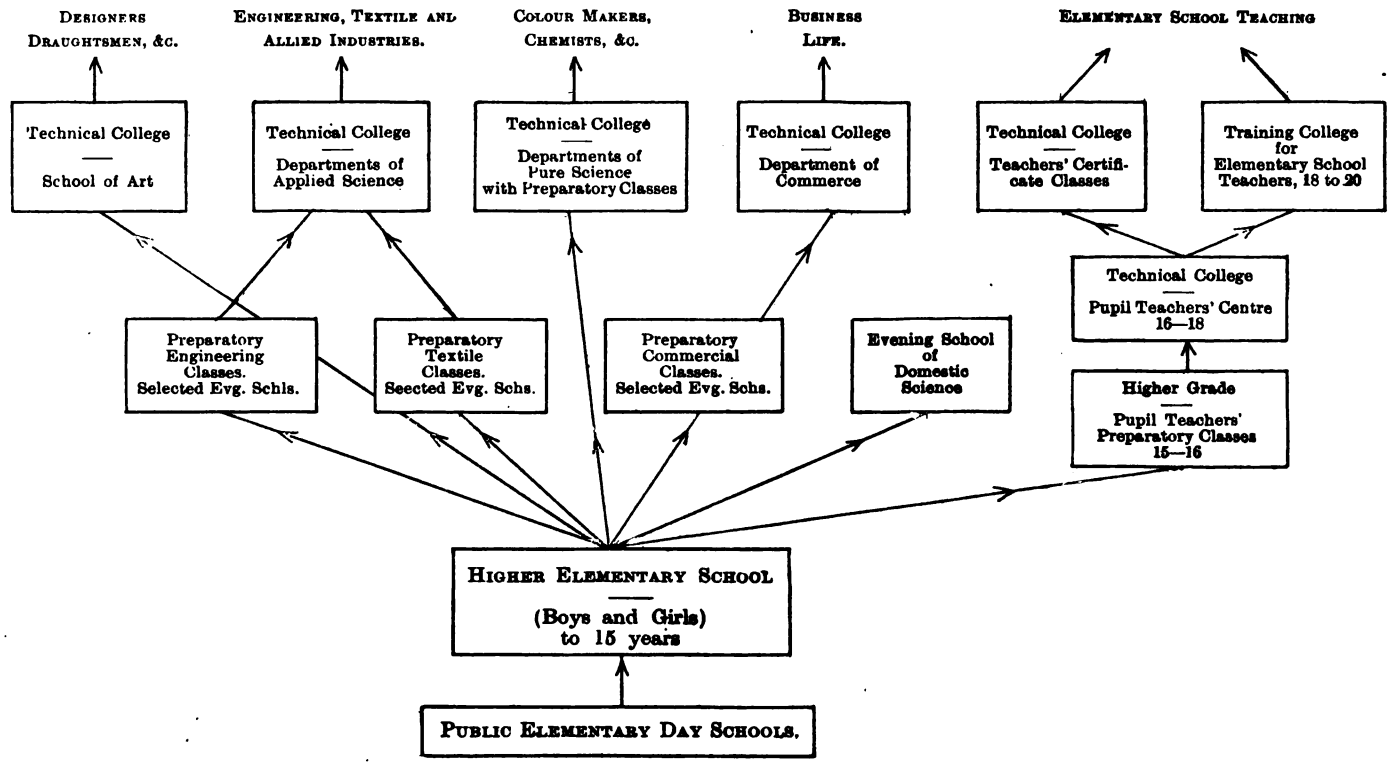
But though it was natural in the circumstances that the school should be constituted a secondary school of science with a view to receiving the special grants offered to schools in that category, the real work of the school has remained true in the main to its original and fundamental purpose. And now that a secondary school is defined as one of which the course as a rule covers the four years at least from 12 to 16, it has become a serious question whether the College Higher Grade School can assimilate itself to the new requirements in regard to secondary education without prejudicing or sacrificing the interests of the great majority of the children who at present avail themselves of its opportunities. It is very possible that, in about ten years' time, Huddersfield will need two public secondary schools for boys. Of these, Almondbury would naturally be one, and (the girls and the children in the standards being removed) the College Higher Grade School might conveniently be made the other. But the Borough does not require at present so extensive a provision. The essential things which should first be secured are a public secondary school for boys on a high plane of intellectual efficiency, and a corresponding High School for girls. The first, for a time, will have to be small. When the need for an additional secondary school for boys is felt, other Higher Grade schools (for boys and girls) are likely to have been established in the Borough. Then it will be possible, without injury to the educational interests of the community, to convert the College Higher Grade School into a secondary school—either for boys alone (as would probably be best) or for boys and girls together. But this is looking far ahead, and my inquiry has led me to the conclusion that the brightest and most useful future will lie before the College Higher Grade school if the Committee determine to regard it, for the next few years at any rate, not as a secondary school, but as a higher grade elementary school. This it was

originally intended to be and to its original aim it has been faithful throughout. In suggesting this, I am very far from recommending any lessening of the present educational efficiency of the school. On the contrary, I would urge on the Committee the advisability of taking certain steps to improve the accommodation of the school, the status of its teachers and certain parts of its educational equipment. But I should regard with grave misgiving the future of the school if it were destined during the next few years to an uphill struggle in the endeavour to accommodate itself to the new conditions rightly imposed by the Board of Education upon all secondary schools. Only a very small proportion of the pupils in the College Higher Grade School are prepared to undertake a course of study extending to 16 years of age. The tables and diagram contained in Chapter III., Section 2 of this report show clearly that the strength of the College Higher Grade School lies within those limits of age which form the province of the higher elementary, not the secondary, school. It would be inexpedient in the interest of the Borough to cut off from the school those great numbers of boys and girls who come to it for a higher elementary training, in order that the school might conform to the new Secondary School Regulations of the Board of Education. There is no reason why the Huddersfield College Higher Grade School should not be made one of the two or three best higher grade schools in England. And it is much to be hoped that the Board of Education may see its way in the early future to re-model the present Minute under which higher elementary schools are carried on, to liberalise and diversify their curriculum and considerably to increase the grants payable to them.

Perhaps the most urgent need of the school is the provision of a playing-field where organised school games could be carried on on half holidays. Such an addition would materially strengthen the power of the school in forming the character of the children committed to its charge. It would also be desirable to improve the accommodation of the physical laboratory.

With regard to curriculum, the present Science Course seems to me by no means the most suitable curriculum for girls. In the third and fourth years of the course, the strain on them must be heavy. The mathematical ability and scientific interests of the Huddersfield boys cause the curriculum, so far as they are concerned, to be much more suitable from an educational point of view than it has proved to be in some other districts. Nevertheless, more time should be given to those subjects which train the power of expression and cultivate an interest in good literature and in the duties of citizenship. The teaching of geography practically stops

DIAGRAM SHOWING THE SUGGESTED CONNEXION BETWEEN THE HIGHER GRADE SCHOOL, THE EVENING SCHOOLS, AND THE TECHNICAL COLLEGE.


DESIGNERS DRAUGHTSMEN, &c.
ENGINEERING, TEXTILE AND ALLIED INDUSTRIES.
COLOUR MAKERS, CHEMISTS, &c.
BUSINESS LIFE.
ELEMENTARY SCHOOL TEACHING
Technical College — School of Art
Technical College — Departments of Applied Science
Technical College — Departments of Pure Science with Preparatory Classes
Technical College — Department of Commerce
Technical College — Teachers' Certificate Classes
Training College for Elementary School Teachers, 18 to 20
Technical College — Pupil Teachers' Centre 16—18
Higher Grade — Pupil Teachers' Preparatory Classes 15—16
Preparatory Engineering Classes. Selected Evg. Schls.
Preparatory Textile Classes. Seected Evg. Schs.
Preparatory Commercial Classes. Selected Evg. Schs.
Evening School of Domestic Science
HIGHER ELEMENTARY SCHOOL — (Boys and Girls) to 15 years
PUBLIC ELEMENTARY DAY SCHOOLS.

at the end of the first year. To English are assigned only three periods a week, and to history only two. It is unfortunate that the school has not done more to feed the Technical College with students. This is a point to which serious attention should be given by the Committee.

It would be undesirable to remove the Standards from the College Higher Grade School. The instruction given in them is a decided educational benefit to many children who would not obtain equally good teaching elsewhere.

In another part of this report I have expressed the hope that the College Higher Grade School will in future be one of the three chief sources of supply of pupil teachers for the Borough. If the school is organised under the Higher Elementary Minute, its normal course of studies will come to an end at about fifteen years of age. The year which must intervene before a scholar could become a pupil teacher at 16, would be occupied with work done in a preparatory class under the new Regulations of the Board of Education. I would urge the desirability of holding that preparatory class at the College Higher Grade School, in order that the intending pupil teachers may have the benefit of continuing to receive instruction from Mr. Montgomery and his colleagues.

For four reasons it seems desirable that the Day School of Science at the Technical College should be given up. First, the numbers have greatly declined. Secondly, the accommodation at the Technical College is in no way suitable for the purpose of a school, and is lacking in facilities for the development of corporate life among boys and girls of school age. Thirdly, the staff at the Technical College ought to be chosen for their skill in imparting instruction to adults, and not in the very different work of teaching children. Fourthly, it is unlikely that the school will be able to conform to the more exacting and sound educational requirements of the new Regulations for secondary schools. At the time of my visit there were no pupils in the third and fourth years of the course. This is a condition of things which, if it persists, will lead inevitably to the withdrawal of the subsidy from the Board of Education. In that case, the maintenance of the school would become one more item in a financial burden already felt to be excessive.

Should the general plan which I am submitting for the consideration of the Committee meet with their approval, the Fartown

Grammar School would usefully fit into the scheme of organisation, if it were staffed and equipped as a preparatory secondary school, taking boys and girls up to the age of 11 or 12, and sending them on at that time to the Almondbury Grammar School and the Girls' High School respectively. Such a plan would meet the convenience of the residents in the district, who would thus enjoy within easy reach of their homes opportunities of a first-rate preparatory secondary education for their children during tender years. The accommodation at Almondbury is so limited that it would be desirable that as a rule boys should not enter there till their twelfth birthday. It would be the task of the Fartown Grammar School and other preparatory schools in the Borough, to train the boys up to that age. These early years are in many respects the most critical, and it would be important that the Fartown Grammar School should be well staffed for the purpose, and that its curriculum, for boys and girls respectively, should be so designed as to lead up to the courses of study at Almondbury and at the Girls' High School. The headmaster of Almondbury and the headmistress of the Girls' High School should therefore make a point of working in close co-operation with Mr. and Mrs. Yates at Fartown, and with the principals of any other schools in the Borough doing similar work. The patient care which Mr. and Mrs. Yates devote to the interests of the Fartown School would justify the Committee in the hope that, if the school were strongly staffed in respect of assistant teachers, the special work, suggested for it in this chapter, would be well done.

With regard to the Longwood Grammar School, the case is more difficult. Possibly the Governors of the school and the inhabitants of that part of the Borough might wish to see the school reorganised on lines similar to those which I have suggested for Fartown. In that case, the school would become one of the feeders for the boys' Higher Secondary School at Almondbury and for the Girls' High School. But I am inclined to think that the educational interests of the neighbourhood would be better served by the establishment, preferably by joint action on the part of the Huddersfield Education Committee and Authorities outside the Borough, of a well-staffed and thoroughly efficient Higher Elementary School. If the West Riding County Council and the Huddersfield County Borough Council could see their way to joint action in this matter, a good work could be done and the educational needs of a populous district would be suitably met. If this course were to commend itself to the Committee, I would advise that for the present the

Longwood Grammar School be left as it is, but that, when a fitting opportunity presents itself, the Governors of the school should consider the advisability of devoting its revenues to scholarship purposes, with a view to offering to the children in Longwood, Golcar and Milnsbridge (all of which have an interest in the trust), further opportunities of proceeding to centres of secondary and technical education. To effect this, a new Scheme would be necessary.

(4) Publication of an Educational Directory for the Borough.

In order to explain and to commend the educational system of the Borough to the ratepayers, and especially to the parents of the town, I would recommend the annual publication of an Educational Directory, written and issued in an attractive style. This should contain a brief and readable account of the educational facilities of the town treated as a whole, particular emphasis being laid upon the correlation of the various parts of the system. A second chapter might be directed to showing how far advantage was being taken of the facilities provided, and might measure the progress achieved as compared with previous years, and perhaps, in some issues, as compared with other British, American or continental towns. When, as will occasionally be the case, the Education Committee sends one of its officers or teachers to study foreign systems of education, a comparative chapter of this nature from the pen of the delegate would make very interesting reading. Needless to say the attractiveness of these sections of the Directory would be much enhanced by the addition of diagrams and other illustrations. A third section of the Directory should deal with each of the institutions recognised by the Committee as " aiding the supply of education " within the area. The conditions of entrance, the fees, the hours of attendance, the work proposed to be accomplished should all be set out clearly ; the aim always being to explain to the parent of a child in the Borough exactly what he may expect each of the institutions to do for his child, what it will cost him, what assistance is possible by way of scholarships or maintenance, and, if he wishes to take advantage of this assistance, how to set about it. The private schools of the Borough which upon inspection prove satisfactory should have their place in this chapter alongside of the directly aided schools. The Public Library and Art Gallery should find their due place in the roll of the educational institutions of the Borough. A further section might explain the possibilities of teaching employment in the different schools under the Education Committee. Finally a list of the holders of Borough Scholarships should be given, and any successes on their part should be chronicled. The aim

throughout should be to inform the ratepayers of the Borough as to the educational work going on in their midst, to interest them in its welfare, and to make them proud of its efficiency and good name. Essential facts of course cannot be omitted, but a dry unappetising catalogue of rules and regulations would be useless. The Directory, if capably edited, should be one of the most powerful means at the Committee's disposal for creating and sustaining public interest and pride in the educational work of the Borough.

CHAPTER VI.

The Supply and Training of Pupil Teachers.

Until the beginning of the present year there were two Pupil Teacher Centres in Huddersfield, one at the Higher Grade School, under the charge of Mr. W. J. Beal, B.A., ; the other at the Technical College, under the charge of Mr. R. Delahunt, M.A., The former was attended mainly by pupil teachers in Council schools, the latter by pupil teachers from the West Riding area and from some of the voluntary schools of the Borough. The Council centre was in January of this year transferred to the Technical College, which had been its home previous to the opening of the Higher Grade School, and the two sets of classes were put under Mr. Beal's management, the intention being to unite them at the close of the year, *i.e.*, on July 31st.

The following table gives the numbers in the two sections in July of this year.

	Council Section.	Technical College Section.	Total.
Preparatory	6	10	16
First year	28	26	54
Second year	20	22	42
Scholarship	42	24	66
Totals	96	82	178

Of the total, 135 were girls and 43 were boys.

It is probable that the West Riding County Council will desire to arrange for the attendance of some 60 or 80 students from their area at the amalgamated classes in the Technical College Centre ; if, indeed, such an arrangement has not already been agreed upon. In what follows, however, I am concerned only with the pupil teachers from the borough schools.

With the effect of the new regulations of the Board of Education upon the instruction and training of pupil teachers, the Committee is already conversant. It has long been recognised in most of the professions that the technical preparation for the duties of professional life must be based upon an adequate foundation of

general and liberal culture. The object of the regulations is to apply this principle to the professional training of elementary school teachers. Hitherto this professional training has been begun too young and has, in most cases, been directly superimposed upon an elementary education which, judged by its own standards, was often scanty and ineffective. In future, until the age of 15 or 16, the liberal education of intending pupil teachers must be continued unbroken; they are to study in company with those who are preparing for quite other walks in life. Provided the new regulations are not made an excuse for flooding the secondary schools with pupils who come too late to profit by the new methods, and in too great numbers to profit by the new surroundings, the effect of the regulations in giving the future teachers a deeper foundation of knowledge and a broader view of life will be entirely advantageous both to them and to their schools. But the intending pupil teachers must not be so numerous as to form a class apart in the secondary school, and they should come to it not later than their thirteenth year. Otherwise the consequent disorganisation of the secondary school will more than counterbalance the advantages which may be expected to result from the new system. Having continued their general education up to the age of 16, the pupil teachers are to be bound apprentice for two years, and are to spend half their time in the elementary schools and the other half in the centre, or the secondary school, to which they are attached.

Before considering the possible sources for the supply of pupil teachers, a word or two may be said as to the number likely to be required. In round numbers there were 13,000 children in average attendance in the elementary schools of Huddersfield during 1903, and to deal with them the Committee had in its service a staff of 334 teachers at the end of the year, an average of one teacher to just under 40 children. On paper this average appears high; but it must be remembered that about a quarter of the 76 departments have less than 100 children and only about a quarter have more than 200.

Further, whatever opinion may be formed as to the number of teachers required, the following analysis shows a plain need for improvement in teaching qualifications.

Certificated Head Masters ..	32	Certificated Head Mistresses	44
Certificated Male Assistants	27	Certificated Female Assistants	101
Male Ex-pupil Teachers	7	Female Ex-pupil Teachers ..	106
		Others	17
	66		268

It would be greatly to the benefit of the schools if the number of certificated men teachers were doubled and if certificated assistant mistresses were substituted for at least half the female ex-pupil teachers.

It is difficult to do more than conjecture the number of pupil teachers who should in any area be bound apprentice in any one year in order to make good the annual diminution in the number of teachers. The principal factor in the problem, viz : the average teaching life of male and female teachers is still unknown. Instead of an exact calculation, we are presented with estimates all more or less random and without a sufficiently wide basis of facts upon which to rest. Adopting a mean between estimates, I am disposed to put the teaching life of an unmarried woman certificated teacher at about 10 years, and of a man at about 19 years. Upon this basis 6 or 7 male pupil teachers and 20 or 21 female pupil teachers would suffice for the needs of Huddersfield, provided the question were merely that of maintaining a staff which was already adequate. But, taking into consideration the fact that the Huddersfield Education Committee has not yet been able fully to carry out its own staffing rules, and allowing for the admitted dearth of qualified teachers, 40 pupil teachers per annum will not be an unreasonable number. At least 8 of these should be boys, if they can be obtained.

The bulk of the Council School pupil teachers in the past have been furnished by the Higher Grade School. The majority of these have left the Higher Grade School at the end of the first year of the Science course, but a fair number have left at the end of the second year and a few at the end of the third year. For its future supply of pupil teachers, the Committee will be able (if the plan suggested in this report commends itself to their judgment) to draw to some extent on the reorganised Almondbury Grammar School for boys ; to a large extent upon the proposed new High School for girls ; and for the remainder of its need, both in respect to boys and girls, upon the College Higher Grade School, with the preparatory class attached to it.*

With the Committee's plan of offering special pupil teacher bursaries at 14 years of age I find myself in cordial agreement. I would, however, recommend that these bursaries be limited to pupils in the higher elementary and secondary schools. To draw children from the sixth or seventh standard of an elementary school at 14

* Possibly, in the future, the Education Committee may see fit to establish a second Higher Elementary School in the Borough—(*e.g.* at Hillhouse), and, in co-operation with the West Riding County Council, a third on the borders of Longwood.

years of age, and to pass them on for a single year to a higher elementary, or for two years to a secondary school will prove educationally unwise. In neither the one school nor the other will the boys and girls so brought on have time to take more than an incomplete fragment of the full school course. They will not be there long enough to profit by the unaccustomed methods and subjects, and on the other hand they will disorganise the work of the schools and will pull down the standard of instruction in the classes appropriate to their age.

Fourteen is the earliest age at which, save in very exceptional cases, a child can be expected to show a bent towards teaching or any other occupation, and therefore it would be wasteful from the point of view of the Authority and unfair to the children to give special pupil teacher bursaries at 12 years of age. We are thus compelled to omit the elementary schools from our calculation except in so far as they furnish pupils to the higher elementary school or, by means of scholarships, to the secondary schools. Seeing that the higher elementary school is free, and as scholarships would be provided to the secondary schools, there would be no hardship in limiting the special bursaries to the pupils in these schools. A boy or girl who has not sufficient ability to warrant a transfer to the higher elementary school has certainly too little ability for the teaching profession.

The rule of the Committee that, before the bursaries are taken up, the successful candidates shall work for a month in selected elementary schools under the eye of thehead teachers and of the Committee's inspectors appears to work admirably. I had myself an opportunity of seeing the rule in operation, and I am assured that after this preliminary weeding out it is very rarely that a pupil teacher's indentures have to be cancelled. Such a rule will be of even greater value in the future, for some of the candidates will have but little knowledge of what elementary schools are like.

Since the higher elementary school course comes to an end when the pupils are fifteen years of age, it would be necessary to provide one year preparatory classes attached to the Pupil Teacher Centre for those who are going on to be pupil teachers. The preparatory class and the Centre need not, however, be under the same roof. "The essence of the arrangement lies partly in the organic relation of the Classes and the Centre as regards curriculum and methods, and partly in the constant flow of students from one to the other and the existence of some definite scheme by which pupils in the classes are secured admission at the requisite period into the Centre to which they are 'attached.'"*

*} Regulations for the Instruction and Training of Pupil Teachers. Appendix F., p. 32.

To all intents and purposes the year in the preparatory class is an extra year of school for those who intend to become pupil teachers, and corresponds to the fourth year of the regular secondary school course. This extra year will be most profitably spent if it be regarded in the light of a terminal year of a liberal education rather than as an initial year of technical training. It would thus be educationally the soundest procedure to keep the preparatory class in the higher elementary school, and to let the children remain for the extra year under their old teachers. The pupil teachers from both secondary and higher elementary schools would thus enter the Centre for the first time at 16 years of age when they are fully apprenticed.

From the standpoint of the Technical College also, it is desirable that there should be few exceptions to the rule which fixes 16 as the lowest age of admission to the College day classes

Personally I should also like to feel able to recommend that the Pupil Teacher Centre be removed from the Technical College. Under the centre-system there are two serious breaks in the continuity of the teacher's education, viz : at 16, when he goes to the Pupil Teacher Centre, and again at 18, when he enters the Training College. In each case he finds himself in new surroundings and comes under the influence of new teachers. The break at 18 is, educationally, very desirable. It marks a climacteric in the career of the student ; he puts off the school boy and enters upon young manhood. The change in experience, the new teachers, the freer methods, are then of immense value to him. He gets a wider outlook upon the world. The Training College, in the life of the young teacher, must fill the place which the University takes in the lives of the recruits to other professions.

But for the break at 16 there is much less to be said. For half his time the pupil teacher will be receiving what is virtually a secondary school education. Wherever possible, therefore, the intending teachers should remain during pupil-teacherhood, for such part of their time as can be devoted to continued school-education, in the schools to which they have belonged during the previous four years of their training. There are obvious difficulties of organisation in attaching the centres to the schools, but in that direction the trend of opinion will, I think, more and more incline.*

In Huddersfield, however, in present circumstances, the need for a separate Pupil Teacher Centre will continue. Those who enter the

* The work of the pupil-teachers who remain at centres attached to secondary schools will be less dislocated if they take their professional work in selected elementary schools in two fairly long periods—the first at the beginning of their pupil-teacherhood and the second in its closing months. These two periods of professional work must, between them, extend over one year.

elementary school teaching profession from the Almondbury Grammar School or from the proposed new Girls' High School might well receive, during their pupil-teacherhood, the remaining part of their general education in centres attached to their respective schools. But provision would also have to be made for the pupil teachers coming from the Preparatory Class at the College Higher Grade School. There would be no room for them, during their pupil-teacherhood, at the Higher Grade School itself. It would therefore be prudent to continue to use part of the Technical College for this purpose. The pupil teacher centre cannot go to the schools ; the next best thing is to bring the school traditions to the centre. The less therefore that the centre is conducted as a mere group of classes in which students are prepared for certain examinations, and the more it falls in with the liberal traditions of good secondary schools, the better. The absence of a playground of any sort is a great handicap. In default of it there ought to be well lighted and, in the case of the girls at least, well furnished common rooms for the pupil teachers' use. At the time of my visit the two common rooms were used by all the students of the college. The women's common room was bare and comfortless. The men's room was a cold half basement, one side of which was used for the storage of furniture.

Stress should also be laid upon the need for organised games, both for boys and girls, at the Pupil Teacher Centre, and care should be taken to utilise every opportunity that offers for creating a sense of corporate life and for training the students in the conduct of affairs.

But though in the pupil teacher centre it is desirable that a tradition and an *esprit de corps* should be fostered which can hardly be expected elsewhere in the College, the centre must remain a department of the College under the control of the Principal to just the same extent as the other departments.

Finally, in view of the overwhelming proportion of girls in the centre, the chief assistant lecturer should always be a woman of standing, and she should have special powers of control over the girl pupil teachers. Girls between the ages of 16 and 18 need the control and direction of a woman, and her position in the centre should be such as to enable her to make that control a reality.

The special work of the centre would thus be to continue and to develop the liberal training of which the foundations had been laid in the secondary and higher elementary schools. The centre can itself accomplish very little in the other branch of its students' education, viz : the preparatory technical training which is the educational justification of the pupil teacher system. This training in the main must be taken in the selected public elementary schools

to which the pupil teachers are attached. The dual control to which the pupil teachers are thus subjected appears to be inevitable in view of the sharp division existing between the liberal and technical sides of their education. This division it will at first be the tendency of the new regulations to accentuate. I refer to it here in order to emphasise the need of a complete understanding between the authorities of the centre and the head teachers of the schools. When the pupil teachers passed straight from the elementary schools into the centre it was natural that conscientious head teachers should take an interest and a pride in their old scholars and should stand almost *in loco parentis* to them. This natural connexion between the ordinary elementary schools and the centre will now be broken, and it will rest with the teachers on both sides to see that it is replaced by a new relationship.

The question of the supply of future teachers for Huddersfield is one to which much attention and constant care need to be given. Under present conditions it appears next to impossible to secure as pupil teachers lads of more than average ability, owing to the many and more promising openings which educated boys can find elsewhere. In this respect, perhaps, Huddersfield is not much worse off than many other boroughs. It is a condition of things which is the outcome of many causes and it will not be remedied until a greater realisation, on the part of the whole community, of the paramount importance of education brings with it a better remuneration for the teachers. In the case of girls, teaching at present ranks high among possible occupations, and it is important, in the interests of the elementary schools, that the work of the pupil teacher centres should be organised on liberal lines lest a repugnance to them should gradually grow up as the standard of education rises among the girls who seek admission to them.

CHAPTER VII.

The Technical College.

The present Technical College has grown out of the labours of an association founded in Huddersfield in 1841 under the name of "The Young Men's Mutual Improvement Society" but afterwards known as the "Mechanics' Institute." Originally the teaching was entirely given in the evening, the instructors in all cases being volunteers. For many years the Huddersfield Mechanics' Institute was regarded as a model of what such an institution should be. The older part of the present buildings was erected upon a site leased from the Ramsden Estate Trustees for 999 years, in 1884, the cost being defrayed partly by voluntary subscriptions and partly by grants from the Committee of Council on Education, from the Clothworkers' Company and other corporations. The College is a public educational trust under representative governors. In 1887 a subscription list was opened with the object of commemorating the Jubilee of Her late Majesty by enlarging the College, Sir Joseph Crosland giving £5,000. This fund was allowed to accumulate until ten years later, and, together with the proceeds of the sale of the old Mechanics Institute buildings, then amounted to a little less than £10,000. At that time there was a balance of about £1,000 due to the College bankers. The enlargement of the buildings was begun in 1897 and carried on until 1902. Meantime, the educational operations of the College were rapidly extended, and, when the completed building with its equipment was made over to the Town Council under the Corporation Act of 1902, the debt upon current account was no less than £9,000, and upon the building account £23,500. The College, therefore, began its municipal career with a capital debt of over £32,000. For interest upon, and repayment of, capital outlay it is estimated that £1,360 will have to be provided in the year 1904–5. Practically two-thirds of the Customs and Excise balances (estimated at £1,300 for the year 1904–5) and a borough rate of 2¼d. in the pound will be required for the current expenses of the College. Upon the receipts side the only item in which an immediate increase may be looked for is the Board of Education grant. If the College becomes a "Technical Institution," under Section 35 of the Regulations for Evening Schools, Technical Institutions and Schools of Art,—a change which will

involve the giving of organised courses of advanced instruction in the daytime—it will be possible to increase the present grant, *pari passu* with the increased efficiency of the College, some fifteen to twenty per cent.

No part of the duty, which was entrusted to me by the Education Committee, has proved so difficult as that of judging what it would be expedient for the Borough to do in regard to the future of the Technical College. Those who established the College were educational pioneers. They saw that technical education had become necessary for England, and, so far as Huddersfield was concerned, they resolved to do their utmost to supply it. Their work was characterised by zeal and public spirit. They were in a van of a movement which has grown in national importance ever since. But, like most pioneers, they had to pay the penalty of being a little before their time. They were in advance of the opinions held on the subject of technical education by many of the inhabitants of the district. The result was that the work of the Technical College did not carry with it at all points the hearty cooperation of those actually engaged in the trades which the College was designed to help. Yet it is on such co-operation that any system of technical education must depend for its continued vigour and practical efficiency. Technical education is nothing unless it is real, and there is a rather academic air about it when the local employers of labour stand aloof from it, or at any rate give little substantial evidence of their personal belief in its indispensable value. But in spite of all discouragement, the friends of the Technical College held manfully to their convictions. There is no doubt that indirectly as well as directly, and outside Huddersfield perhaps even more than in the Borough itself, their work has borne much fruit. By starting its Technical College when it did, and on so large a scale, Huddersfield played no unimportant part in the movement which has succeeded in making the nation realise, as it never realised before, the fact that, under modern conditions, scientific methods of thought and training are vitally important factors in industrial and commercial success. But the pioneers of technical education in Huddersfield laboured under especial difficulties when they came to apply their principles to the test of practice. Huddersfield had, and has, the misfortune of being singularly destitute of good public secondary education for boys. But we now realise what was not fully realised when the work of the Huddersfield Technical College began, namely, that a liberal secondary education up to the age of sixteen or seventeen is the indispensable foundation of the higher kinds of technical training. If there had been a first-rate public secondary school at work in Huddersfield during the last twenty years, there would have been much more practical support

for high-grade technical education forthcoming from the employers of labour than has actually been given. Moreover, certain mental characteristics, which have helped to make the West Riding what it is, are not very propitious to the early stages of the movement for introducing in a thorough-going way scientific forms of higher technical education. The hard-headed Yorkshireman believes in learning a practical business in the workshop itself. He does not believe in learning about it out of books. He does not believe in learning it under artificial conditions. And in holding these opinions most people will agree in thinking that he is perfectly right. But what, if I may venture to say so, the Yorkshireman is not equally strong in, is a quick perception of the bearings of modern scientific discovery and of scientific method and research upon the actual processes of industry as they must now be carried on if the fierce competition of scientifically educated rivals is to be successfully met. The West Riding believes in the practical man. It distrusts the theorist. It holds fast to the old ways. It attaches much more value to practical skill than to activity of ideas. It prefers to have its theories embedded in practice and to have them handed on through practice from one worker to another rather than to run the risk of losing a high standard of traditional skill by paying too much attention to new ideas, while those ideas are still in an early and untested stage. Roger Ascham, himself a Yorkshireman, and one of the shrewdest writers on education who ever lived, expressed the Yorkshire point of view when he said that " quick wits commonly be, in desire, new fangle " (*i.e.* apt to catch at novelty) " but, in purpose, unconstant," and when he gave utterance to his own liking for " hard wits " which do not " desire every new thing." But however much we may admire this type of mind, we must admit that at certain stages of the world's history it is apt to find itself at a perilous disadvantage. When social and economic conditions are rapidly changing, and when industrial processes are needing frequent readjustment in order to keep up with swift alterations in public taste, there is need for much adaptability of mind and for the power of quickly modifying old methods in order to follow, or even to anticipate, new demands. And we happen to be living in such a time of rapid change. The three factors which have done most to bring about that change are the application of science to industry, the new facilities for locomotion and the spread of popular education. Technical instruction aims at enabling the learner to grapple with the new conditions under which he will have to work, and at furnishing him in an abridged form at the outset of his career with the varied information which he will need in order rightly to judge the opportunities which will present themselves to him. It also seeks to give him that general introduction to the

different sides of his future business, which in former and simpler days he could get for himself during the years of his apprenticeship, but which it is much more difficult (and in some cases actually impossible) for him to obtain under the more specialised conditions of the present time. Technical instruction can never be a substitute for the practical training of the factory or the workshop. The finest kinds of skill come through long practice under actual business conditions. But technical instruction, rightly understood, is the best preparation for subsequent success in responsible positions in the workshop or the factory, and a necessary supplement to, and accompaniment of, workshop training. If, however, technical instruction is to be really useful and effective, it must be given by men who are thoroughly well acquainted with the best current practice of the trades for which their pupils are being prepared. And in point of equipment and illustration it must be thoroughly up-to-date. Hence it follows that efficient technical instruction must be a very costly thing. It will flag and fail unless it is in close touch with the employers of labour and with actual conditions of employment. And it must rest throughout upon a sound basis of general education and of accurate scientific information. Is it too much to hope that the West Riding, with its keen business instinct and its ingrained distrust of mere theory, may yet lead the way in developing that kind of technical education which is first-rate, both on the theoretical and on the practical side ? The industrial welfare of the Borough is a matter of collective, not of merely individual, concern. The furtherance of that welfare, however, may well come through the genius of some individual. It will certainly come also through the intelligent activities of great numbers of well-instructed workers, labouring in an atmosphere which encourages the suggestion and application of new ideas. Is it not expedient therefore that no pains or reasonable expense should be spared in providing the best educational opportunities for those who, with such help, will be able to do great things for their native town ?

No one, however, can visit Huddersfield at the present time without becoming aware of an uneasy feeling that the Technical College has not, so far, succeeded in doing as much for the industries of the place as its promoters hoped that it would do. I hope that, in what I am about to say, I shall not be taken as expressing any sympathy with those who, through lack of faith in education and in ignorance of what technical instruction has accomplished elsewhere, regard the work of the College with impatience and desire retrenchment at any price. But I am bound to confess that my inquiry into educational conditions in Huddersfield led me to the conclusion that there is need at the Technical College for more concentration of

effort on those departments of the College work which stand in vital relation to the industries of the Borough. These are the Textile Department, the Art Department, the Dyeing Department (which should be closely associated with the Chemical Department), and the Engineering Department. Whatever else is done, these Departments should be regarded as having a paramount claim on the resources of the College and on the consideration of its governing body. If, in view of the heavy educational and other responsibilities of the Borough, some retrenchment is found necessary at the College, it would, I think, be expedient to transfer or curtail other branches of its work rather than to allow anything to stand in the way of making the departments above-mentioned as thoroughly up-to-date as the industrial needs of the Borough require them to be.

In saying this, I am far from meaning to deny the convenience of having a variety of departments at the Technical College, offering instruction in a number of the subjects taken by students who are preparing themselves for the London University and other examinations. It is perfectly true that a certain number of young people in Huddersfield are saved from the trouble and expense of going to Leeds or elsewhere if such instruction can be obtained close to their own homes. But I would urge (1) that the essential work of the Technical College is to prove itself of practical value to those engaged, or preparing themselves to be engaged, in the staple trade of the town ; (2) that nothing should be grudged to the College which will enable it to render the signal service to the trade of the town which a Technical College can render if it be thoroughly well staffed, thoroughly well equipped, and thoroughly well supported by the employers and others actually working in the trade ; (3) that it will be in all likelihood a costly business to make the technical work at the College in all respects what the practical men in Huddersfield would like to see it, though I know how excellent much of the work of the College is and how much it is appreciated by many of those who are best qualified to judge of its value. At this point, however, there rises the question of expense. If Huddersfield is prepared to meet the cost *both* of thoroughly efficient technical work *and* of a number of non-technical miscellaneous classes, then the way is plain. But if strict economy is necessary, then let it be decided to sacrifice the non-essentials (however desirable in themselves those non-essentials may be) and to concentrate effort and expenditure on the essential things—which in this case are the technical classes bearing on the staple trade.

Moreover, the provision of a thoroughly good public secondary school for boys, and of a public secondary school for girls, will meet,

by means of instruction given at an earlier stage, some of those needs which are at present supplied by some of the non-technical classes at the College. Again, it by no means necessarily follows that, though it may be more convenient for a Huddersfield youth to get part of his higher education within the Borough, it is in all cases actually better for him to be able to do so. There is often a great advantage in going further afield, away from home, to some more highly organised centre of University education.

I am afraid we must admit that the Technical College has not yet succeeded in impressing itself upon the mind of Huddersfield as an essential factor in the future industrial prosperity of the Borough. How many people in Huddersfield are there who, if they were asked to name the things which are doing most to secure the industrial welfare of the town, would instinctively put the work of the Technical College high up on their list ? But unless a Technical School holds this place in the minds of the people who support it, can it be said to have succeeded as yet in fully justifying its existence ? No one who has seen what well-directed and thoroughly effective technical instruction can do for an industrial town will doubt for a moment that the Technical College could do the same for Huddersfield. But there is leeway to make up. The battle is not yet won. I would urge that the authorities of the school and of the Borough ought to relax no effort until the whole of the community, employers and workpeople alike, heartily believe in the Technical College, and regard its maintenance in complete and progressive efficiency as being a civic duty as plain as the maintenance of a good tram-car service or a pure water-supply. In order to bring about this change in public sentiment, there is much to be said in favour of cutting away all surplusage (excellent as the surplusage may be from many points of view) and making the Technical College plainly and unmistakeably an institution devoted to the interests of the staple trade of the town. At present its activities are so miscellaneous that casual observers might be excused for thinking that it existed for a somewhat different purpose.

There appears to have been in the minds of some of the friends of the Technical College a half-formulated ambition to make it a University College, with a wide range of academic activities. I fear, however, that any attempt to achieve such a purpose would result in costly failure. There is no real need in Huddersfield for a University College doing all kinds of academic work. The University of Leeds is within easy reach, and can meet all ordinary needs. It would be wasteful to attempt to duplicate its labours. The right policy for Huddersfield is to strengthen the University of Leeds,

not to attempt to set up an ineffective substitute for it. What is wanted in Huddersfield is a deliberate concentration of thought and resources upon the development of those technical departments which can, if made really efficient, greatly help the trade of Huddersfield and add to the wealth of the community. The City of Bradford has set an example in this direction which it would be wise for Huddersfield to follow.

But no Technical College can really prosper unless its students come to it thoroughly well prepared by their previous education. The success of the day classes at the Technical College will depend upon Huddersfield's having within easy reach a first rate public secondary school for boys. The success of the evening classes will depend upon the excellence of the elementary and of the Higher Grade schools and of the preparatory evening classes. And these factors will have a further influence on the situation. They will produce throughout the Borough an attitude of mind which is favourable to education and a general conviction of the value of keeping science and art in close alliance with industry.

At the time of my visit to Huddersfield, the day and evening classes of the College were organised in thirteen departments. I now propose to give a brief account of the work of each. The statistics have been prepared at my request by Mr. T. Thorp, the Secretary of the College, whose valuable assistance, readily afforded at a time of considerable pressure, I desire gratefully to acknowledge. I have previously described the Day School of Science which is held in the College building; it will therefore be understood that the pupils of the school are not included in the following statistics. The statistics throughout are those for the month of March, 1904.

(1) Department of Languages.

The languages included are Latin and Greek, English, French and German; the whole time of three lecturers being engaged. In the day classes in Latin there are 16 students, 10 in a matriculation class, 2 in the intermediate class, and 2 in the final class for the London University Bachelor of Arts degree. In the evening classes in Latin there are 11 students, 2 of whom are doing advanced work. In the day classes in Greek, there are 5 students, 3 of them preparing for the London University degree; and in the evening classes there are 3 students.

In the day English classes there are 34 students, 21 of them in a matriculation class and 3 of them preparing for the London Arts degree. In the evening classes in English, there are 8 students.

In French, there are 39 day students, 7 of them preparing for an Arts degree. In the evening classes, there are 31 students, 4 of them in a conversation class. In German, there are 14 evening students and 1 day student.

The totals for the department are thus in day classes 95 entries, and in evening classes 67 entries.

Hitherto a great deal of the lecturers' time has been taken up with School of Science pupils not enumerated above. Apart from the latter, the classes are very small. Of matriculation students there appear to be a fair number, but for more advanced examinations there is nothing which can be described as a steady supply.

(2) Department of Commerce.

In this department instruction is given in book-keeping, shorthand, type-writing and business methods. The number of class entries in the various subjects is set out below.

Day Classes.

Book-keeping		19
Shorthand		29
Business Methods		16
Typewriting		12
Total		76

Evening Classes.

Book-keeping, elementary	64		
,, intermediate	21		
,, advanced	14		
Total..	—	99	
Shorthand, elementary	57		
,, intermediate	25		
,, advanced	23		
Total..	—	105	
Commercial Arithmetic, elementary	25		
,, ,, advanced	6		
Total..	—	31	
Type-writing		11	
Business Methods		51	
Full Total		297	

A considerable number of the School of Science pupils transfer themselves to this department at the close of their second year. Most of the students take the examinations of the Yorkshire Union of Institutes, and occasionally some are entered for those of the Society of Arts. Many of the students in the evening classes come exceedingly badly prepared. It is found necessary to begin absolutely at the beginning with them and even to teach them to spell some of the common terms (*e.g.* " expenses ") which are used in book-keeping, and to do compound addition accurately. It appears to be possible to join the commercial section by paying a fee of 4d. a week, and this encourages an amount of coming and going in the classes which is anything but conducive to sound work.

Much of this elementary commercial work I feel to be utterly out of a place in the Technical College. If Mr. Fieldhouse's experience could be used to establish evening commercial work in centres intermediate between the ordinary continuation schools and the College it should in a short time be possible to have a department for serious commercial work, including economics, at the College, fed from these intermediate centres.

In any case the present low fee should be abolished. It is not desirable that boys should be tempted by a low fee to make commercial instruction a substitute for the more liberal and educational subjects which nine-tenths of them really need.

(3) Department of Economics.

At the time of my visit to Huddersfield there were 6 students in this department studying commercial geography; 2 of them in addition were attending a class in political economy. Of these six students, three were intending to enter banks. There were also 23 evening students, the bulk of them preparing for the examinations of the Institute of Bankers, the others principally clerks and commercial travellers desirous of obtaining an insight into the principles of commerce. One of the day students of the department recently obtained an Oxford scholarship, including political economy among his subjects. The department has been in existence now for five years, and is in part supported by the income from the Sikes' fund, roughly £60 a year,† The interest upon the profits of the College Savings Bank which was closed in 1898, amounting to a sum of £30 a year, is also devoted to the same purpose.

† Sir Charles William Sikes (1818-1889), a citizen of Huddersfield, was the author of the plan for the Post Office Savings' Bank. He was knighted in 1881.

By providing short special courses in commercial geography and history, in political economy and in cognate subjects, and by assisting students who are preparing for banking and other examinations, the Department of Economics can do useful work. At the same time Huddersfield is primarily an industrial as distinct from a commercial town, and in my opinion the attempt to experiment in the direction of a High School of Commerce would not be likely to succeed. On hardly any question is educated opinion more divided than on the subject of higher commercial education. For some years to come higher schools of commerce in England will be experiments, and, in any but the large distributing centres, very costly experiments. In almost every subject of higher commercial education a vast amount of what is akin to the research work of natural science will have to be done, before the methods, and much even of the subject-matter, of instruction can be regarded as being beyond the stage of tentative experiment; but, save in University towns, where the help of a staff of skilled specialists can be obtained at every stage, the cost of making these experiments will be prohibitive. Moreover, a school of commerce, like any other school, is a vain thing without a constant and regular supply of pupils who are prepared to take a day course for at least one year and whose general attainments warrant the specialisation. Pupils of a sort can easily be obtained, but pupils adequately prepared are not readily available. The natural centre for the type of commercial instruction of which I am thinking will be the University of Leeds. And, if experience in other parts of England is any guide, the West Riding will be none too large a gathering-ground for such a venture. The movement for higher commercial education is growing and will doubtless gather strength, but the time is certainly not ripe for the establishment of Faculties of Commerce outside the Universities, or for the foundation of High Schools of Commerce outside the largest commercial towns.

(4) Biological Department.

The work of this department has a bearing upon the textile and some other industries of the district, and also upon the training of teachers, especially with a view to nature-study. The College is fortunate in having one of the best biological laboratories in the North of England. In it there is every convenience for dissecting and microscopic work, and I am not surprised to hear that the laboratory has been taken as a model by several other institutions which contemplate similar work.

The classes are arranged according to the subjects and grades appointed by the Board of Education. The number of class entries is as follows :—

DAY CLASSES.

	ELEMENTARY.		ADVANCED.		HONOURS.	
	Theor.	Pract.	Theor.	Pract.	Theor.	Pract.
Botany	3	3	—	—	1	1
Human Physiology	2	2	—	—	—	—
Zoology	3	3	1	1	—	—
Totals....	8	8	1	1	1	1

EVENING CLASSES.

	ELEMENTARY.		ADVANCED.		HONOURS.	
	Theor.	Pract.	Theor.	Pract.	Theor.	Pract.
Botany	9	10	6	6	6	5
Human Physiology	10	10	6	4	—	—
General Biology	19	19	—	—	—	—
Totals....	38	39	12	10	6	5

The chief groups of students are about twenty elementary school teachers preparing for their certificate, eight students who are working for degrees, three of them for the London University B.Sc. degree ; and seven or eight pharmaceutical students. Eight students from the Textile Department are taking a special course in the biology of textile fibres, including their microscopic structure. A very complete collection of fibres has been formed to illustrate this course. The department also touches the work of gardeners and nurserymen. Two of the latter are working at fungus disease and are experimenting in their own gardens with a view to devising means of combating it. Some young timber-merchants come to this department to study the structure of timber and its diseases as affecting its structural value. With the help of the instruction given here, they can judge better what timber to use for particular purposes and how to detect dry rot. The Biological Department is frequently consulted on other practical points. During the last few months,

several samples of cloth have been sent in, through the Borough Analyst, for examination with a view to the discovery of the reason of their getting spotted. The question to be decided was whether the fault lay with the dyer or with the manufacturer. If the work of the department were better known in Huddersfield, there is no doubt that such practical utilisation of its resources would become common. The head of the department, Mr. T. W. Woodhead, F.L.S., is carrying out with his students a series of studies in the local distribution of plants : research work which should be of considerable value in training teachers for scientific nature-study. A greenhouse for experimental work has been fitted up, but if the department is to be extended, a small open-air garden will become a necessity. Such a garden would be used for showing examples of school-plots, and for growing illustrative material. I am told that a suitable plot of ground exists upon the north side of the College, the use of which for such a purpose might probably be obtained, by the courtesy of the occupier, at a nominal sum.

In close association with the Biology Department is the Museum, which is at present, thanks to the generosity of numerous donors, more complete upon its natural history and geological sides than in the industrial and applied art section.

The future of the Biological Department is one of the problems which the College Committee will have very shortly to consider. The department is probably one of the best equipped in the College : the facilities are such that work of a University standard can very well be carried through there. But it is evident that the resources of the department are not utilised to anything like their fullest extent. It is playing a useful part in the training of teachers. As its work becomes better known, there is good reason to hope that the manufacturers and other citizens of Huddersfield will avail themselves more fully of its services. I would suggest that it be maintained on a high level of efficiency, and that, if possible, it be affiliated with the University of Leeds, which appears to have power under its charter to recognise such a department, if doing work up to academic standards.‡

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‡ UNIVERSITY OF LEEDS—*Charter and Statutes*, 1904, II. (9) [The University shall have the powers following : . . . .]

"To affiliate other Colleges or institutions or branches or departments thereof to any of the privileges of the University, and to accept attendance at courses of study in such Colleges or institutions in place of such part of the attendance at courses of study in the University, and upon such terms and conditions and subject to such regulations as may from time to time be determined by the University."

(5) Mathematical Department.

The Mathematical teaching in the College ranges from elementary algebra and the first book of Euclid up to Stage V. of the Board of Education's syllabus. The number of class entries is as follows:

Day Classes.

First year	5
Second year	7
Third year	10
Stage II. and Matriculation	14
Stage III.	15
Stage V.	2
Theoretical Mechanics (Fluids, elementary)	4
,, ,, (Solids, advanced)	4
Total	61

Evening Classes.

Mathematics, Practical	35
Stage I.	32
Stage II.	6
Stage III.	6
Stage IV.	3
Stage V.	3
Theoretical Mechanics (Solids, advanced)	5
,, ,, (Fluids, advanced)	2
Total	92

There are also classes in Mathematics in both the Mechanical and Electrical Engineering Departments, conducted by the staffs of the respective departments.

Mathematics are a necessary foundation for the study of engineering. It is a question whether many of the students in the department will not be absorbed by the organised courses of connected subjects which must take the place of the present isolated classes when the College becomes a Technical Institution under the Board of Education's new regulations. In any case the mathematical classes should be worked in close connexion with the two engineering

departments. In the Bradford Technical College, where mathematics are only taught to the technical students, the teachers form part of the ordinary staff of the other departments, and there is no separate department for mathematics. How far any similar arrangement would be expedient in Huddersfield is a matter of internal organisation which the authorities of the College will doubtless consider.

(6) Department of Civil and Mechanical Engineering.

The number of males employed in engineering and in the metal trades in Huddersfield at the date of the last census was just over 3000. I am told that engineering work in and about Huddersfield is a growing industry. Engineering everywhere is a developing profession. In centres of industry the engineer and the metal worker are becoming more and more important, and in everyday life they have an increasing part to play.

The Engineering Department of the College provides, in addition to the regular engineering courses, instruction in carpentry and joinery and other forms of constructional work which are grouped under the building trades, and which in Huddersfield furnish a livelihood for nearly 3000 working men.

The department is now one of the largest in the College and ought to be able to depend upon a steady supply of evening students at least. The number of class entries in the various subjects in March of this year was as follows :—

Day Classes.

	Elomentary.	Advanced.
Practical Plane and Solid Geometry ..	6 ..	3
Machine Construction	8 ..	6
Applied Mechanics	3 ..	2
,, ,, (Practical) ..	5 ..	—
Steam	— ..	2
Steam (Practical).....	— ..	3
Building Construction.....	1 ..	2
Workshop Class	9 ..	—
Totals	32 ..	18

EVENING CLASSES.

	Elementary.	Advanced.	Honours.
Practical Plane and Solid Geom. A	46	11	—
,, ,, ,, ,, B	47	—	—
Machine Construction and Drawing	69	38	13
Applied Mechanics	37	20	—
,, ,, (Practical)	2	—	—
Steam (Theoretical)	24	19	4
Steam (Practical)	—	12	—
Building Construction	25	26	3
*Carpentry and Joinery	21	22	4
*Builders' Quantities	—	13	—
*Handrailing	—	5	—
Surveying	3	3	—
Practical Mathematics	57	7	—
Totals	331	176	24

* These subjects being for the City and Guilds of London examination are classed as Preliminary, Ordinary and Honours.

There are also in the evening a practical joinery class attended by 4 students, and an engineering workshop class attended by 11 students. These classes do not fall under the grades represented above.

The department comprises a lecture room and a drawing office which will each accommodate 42 students ; an engine room containing gas, oil and steam engines ; mechanical and metallurgical laboratories ; a woodwork shop ; a machine shop, a plumber's workshop and a small smithy. The equipment does not include an adequate testing machine, an omission which detracts very much from the efficiency of the department.

Under Dr. J. H. Grindley's guidance the department made considerable progress. The students hold together well and a successful Engineering Society is one of the features of their corporate life.

On some evenings the rooms are inconveniently crowded, and it will be necessary shortly to consider the question of further accommodation. The removal of some of the more elementary classes to one of the evening schools, possibly Spring Grove or the College Higher Grade School, would not only solve the difficulty but, provided these classes remained under the control of the engineering staff of the College, would help to establish a connexion between the College and the evening continuation schools which, to the great disadvantage of both, has not existed in the past.

It is much to be hoped that in Huddersfield, as in Bradford, the engineering employers will make arrangements with the engineering department of the Technical College for special day classes for working apprentices. Experience has shown that, after a hard day's work in the shops, only students of exceptional physique can get the best advantage from evening classes. This is especially true of the study of mathematical subjects, which call for close application of mind. I am indebted to Mr. Thomas Garbutt and to Mr. Walter M. Gardner, of Bradford, for the following summary of the scheme which has been drawn up by the Bradford Branch of the Engineering Employers' Federation and has received the sanction of the City of Bradford Technical Instruction Committee.

1. Apprentices shall be permitted to attend the Technical College on one half day per week without loss of wages.

2. The fees, amounting to £3 per session per student, to be paid by the employers who also undertake, in deserving cases, to provide the necessary books and instruments.

3. Apprentices will in addition be required to attend, on two evenings per week, classes forming part of the course.

4. The fees for evening classes, amounting to 10 shillings per session, to be paid in the first place by the apprentice, but will be remitted by the employer at the end of the session, if a satisfactory report is obtained. In really deserving cases the fees will at once be paid by the employer.

5. The complete course will extend over five years, and will include (1)in the day classes, practical mathematics, mensuration, calculation of weights, quantities, &c., physics and mechanics, and (2) in the evening classes, applied geometry, practical draughtsmanship, strength and testing of materials, foundry work, machine tools, and engine testing.

6. Any apprentice who succeeds in passing the qualifying examinations will be permitted to attend the College as a regular day student during the last year of his apprenticeship, to enable him to study some special branch of engineering work. During this time he will continue to receive the usual wages, and the College fees will be paid by his employer.

7. Reports of progress are periodically sent to employers, and examinations are held in each subject at the close of the session.

It is gratifying to hear that the plan is working well. Though in no sense a substitute for the full day course, it is a great advance on the former conditions of apprenticeship. Some 60 or 70 apprentices are now attending day and evening classes in Bradford on these lines.

Further, it should be added that, if a course of general technical training for the textile trades were arranged at the College, a course introductory to mechanical engineering should form part of the scheme.

(7) Department of Physics and Electrical Engineering.

The gathering-ground of this department extends in all directions round the Borough to a distance varying from seven to ten miles. and includes between 200,000 and 250,000 people. The department has a very full complement of laboratories. In addition to elementary and advanced physics laboratories, there are a heat laboratory, optical and photometry rooms, testing rooms, a dynamo room, dark rooms, and a workshop.

In the day classes there are 23 entries for theoretical science subjects under the Board of Education—sound, light and heat, magnetism and electricity—6 entries being for advanced classes. For practical physics there are 12 entries. In addition, 5 students are working with the second year pupils of the School of Science. In the first stage of electrical engineering there are 3 class entries, in the second stage, one.

The evening class entries are as follows :—

Sound, Light and Heat (elementary)	2
Sound (advanced).....	4
Light ,, ...	6
Heat ,, ...	4
Practical Physics (three advanced classes)....	21
Magnetism and Electricity (elementary).....	18
,, ,, (advanced)	3
Electrical Engineering, Stage I.	8
,, ,, Stage II.	15
Practical Mathematics.....	5
Total. ...	86

The testing plant in this department is, I understand, fairly complete, but if serious work in electrical engineering is to be undertaken the plant for practical work will have to be very much increased. At present, however, it is far from evident that there is any considerable demand for electrical engineering in the Huddersfield district. Mechanical engineering is pretty general throughout the district : electrical engineering less so. But electrical engineering must in future steadily grow in relative importance.

It is desirable that the Corporation, through the Committees concerned, should allow students in the Electrical Engineering Department of the Technical College to go to the Municipal Lighting and Tramway Stations in order to gain practical experience. One great advantage of the municipalisation of educational affairs is that arrangements of this kind, which enhance the practical value of the technical instruction given, can be conveniently made. The Education Committee might well pay the premium-fees (if any) of selected students as a form of scholarship. The students would do their theoretical work at the Technical College alongside with their practical work at the Municipal Lighting and Tramway Stations. Time spent in these stations would be counted as part of the electrical engineering course at the College. An arrangement of this nature is now in force at Newport (Mon.)

There are four directions in which the department of electrical engineering is likely to render valuable service to Huddersfield.

(1) Increased thought is certain to be given in the future to the problem of the technical training of engineers. Attendance at day-courses will become, in a far greater number of cases than heretofore, part of the technical preparation of apprentices. It is much to be hoped that the engineering firms in Huddersfield and district will arrange for their apprentices to attend day-classes at the Technical College. In Bradford and Manchester important steps have been taken in this direction. The department of electrical engineering should play a useful part in any such extension of practical technical training.

(2) As part of a general course of technical training for the textile industry a student ought to receive some instruction in the use of electric motors.

(3) Short evening courses on special parts of electrical engineering would probably be of value to men already at work in the trade. It has been suggested to me that the department might make a special feature of such courses, from six to twelve lectures being given in each course. They should be designed not for apprentices or improvers, but for the men of experience in the trade.

(4) The regular evening courses for apprentices and others, as given at present, meet a permanent need. It is to be hoped that more employers will allow apprentices to have an afternoon off duty before attending the evening class. Some of the students are too tired with a full day's work

to get the benefit which they would otherwise have received from the evening classes. Numbers of them deserve high praise for the pluck and perseverance which they show in regularly coming to evening classes under present conditions.

(8) Chemical Department.

The Chemical Department of the College is equipped to provide a full four years' course in chemistry for students whe propose to become professional or technical chemists. Such students, if they were forthcoming, might here complete their professional training as far as apparatus and laboratories will enable them to do so. In the words of the prospectus "The new laboratories furnish elaborate accommodation for most classes of chemical work." These laboratories include a well fitted elementary inorganic laboratory with 36 working places and with two convenient store-rooms attached; two lecture rooms, the one accommodating 39 and the other 16 students, with a preparation room between them; an advanced inorganic laboratory; an organic laboratory with steam installation; a laboratory for research work, and one for gas and water analysis; and a balance room. There is also a fully equipped metallurgical laboratory in the College.

The students at present attending this department during the day time are as follows: 6 doing theoretical and practical inorganic chemistry with the pupils in the second year of the School of Science; 9 preparing for the Board of Education's advanced stage, inorganic chemistry, both practical and theoretical; 6 preparing for London matriculation and 7 attending elementary or advanced classes on Saturdays. In organic chemistry there are 2 students in the elementary stage.

The evening class entries may be given in tabular form:—

	Elementary.		Advanced.		Honours.		Hon's, Pt. II.		Totals.
	Theoretical.	Practical.	Theoretical.	Practical.	Theoretical.	Practical.	Theoretical.	Practical.	
Inorganic Chemistry	27	25	17	13	—	2	—	—	84
Organic Chemistry	13	10	4	5	1	—	1	—	34
Totals..	40	35	21	18	1	2	1	—	118

Mr. J. Bruce, B.Sc., F.I.C., the present head of the department has kindly furnished me with the following analysis of the students :

Not in Occupations.	Day Students.	Evening Students.	Totals.
School of Science.....	43	—	43
Full Course	16	—	16
Matriculation	4	—	4
	63		63
In Occupations.			—
Teachers	3	—	3
Pupil Teachers	2	—	2
	5		5
			—
Engineers	2	3	5
Dentists	—	3	3
Woollen Spinners, &c. ..	—	10	10
Dyers and Colour Makers. .	—	34	34
*Others	3	18	21
Totals	73	68	141

* Among these the following industries are represented :—oil-worker, gas chemist, sewage chemist, analyst, dispenser, photographer, distiller, brewer, laundryman, gelatine maker.

More than half the students who are " in occupations " are thus connected with the woollen industry, most of them as dyers and colour makers. The making of dyes has passed almost entirely to Germany, but one of the surviving English firms is a Huddersfield house, and its apprentices form the back-bone of the dyeing department presently to be discussed. There are also a few makers of dyers' chemicals in the neighbourhood. Between them these firms give employment to nearly 500 men and a few women.

The full course students are mainly youths who purpose entering the textile works. No scientific knowledge of dyeing is possible without a foundation of chemistry and all intending students of dyeing are compelled to spend a year in the study of chemistry before entering the Dyeing Department. The wisdom of this compulsion is shown by the fact that some of the best students in the Chemical Department are those who have returned to it from the dyeing, having found that their knowledge of chemistry was insufficient for the more advanced work in dyeing.

At the same time, it must not be forgotten that three years is as a rule the limit of time which youths are willing to give to evening work at the Technical College. The work has to be done under arduous conditions in the fag end of the day, and therefore it will be unwise to keep students, who wish to go on to dyeing, any longer than is absolutely necessary at the study of pure chemistry.

Hitherto the dyeing students have been put through the ordinary elementary course of the Board of Education in order that the Board's grants might be earned. Now that the new regulations allow greater freedom it should, I think, be considered whether a special chemical course cannot be devised for textile students which will form a more suitable introduction to dyeing than the ordinary Stage I. of the Board.

(9) Dyeing Department.

The connexion of the Dyeing Department with the Chemical Department is necessarily close. There is much to be said in favour of amalgamating them. It is satisfactory to find that arrangements have been made whereby at the close of their first year students in the Chemical Department will be offered a course in elementary dyeing as an alternative to advanced inorganic chemistry. In the past, many students, who would have done much better by accepting such an alternative, have, for want of it, remained in the Chemical Department a second year, but in the end have been greatly discouraged by their failure to pass the difficult second stage examination of the Board of Education, an examination which requires more than a year's work in the case of an average student.

Considering that the dyeing of textile fabrics is one of the chief operations in the trade of the neighbourhood, it is a very serious fact that in March, the Dyeing Department was absolutely without day students for the first time for seventeen years. There are 18 evening students, making between them the following class entries :

	Ordinary.		Honours.	
	Theor.	Prac.	Theor.	Prac.
Wool Dyeing	8	8	5	5
Cotton Dyeing	5	5	—	—
Coal Tar Colours	5	—	—	—
Totals....	18	13	5	5

The coal tar colours constitute an advanced branch of organic chemistry. Of the 5 students in the subject, 3 hold the B.Sc. degree of the University of London, and one is an Associate of the Royal College of Science.

What are the causes of this failure of the Dyeing Department at the College to secure a better attendance of day students ? They may be summarised under four heads, First, the student who aims at becoming a first-rate scientific expert in the theory and practice of dyeing, and therefore needs instruction of University rank, goes naturally and rightly to the school of dyeing at the University of Leeds or to some other institution of similar rank. There is no need for Huddersfield to duplicate this grade of work. Secondly, the Dyeing Department at the Technical College was a pioneer school of dyeing and received its equipment as long ago as 1885-6. Very little money seems to have been expended on it since, and much of the equipment is rather old fashioned. Great schools of dyeing have since been established in Leeds and Bradford. It is possible with the old fashioned dye becks to illustrate the dyeing processes completely, but students who are in a position to choose, naturally attach themselves to the newly fitted schools. There are two capital defects in the equipment of the department. The first is the want of apparatus in which the yarn can be dyed in serviceable quantities. The Dyeing Department ought certainly to be so equipped as to be able to supply the Textile Department with dyed yarn in quantities sufficient for working up. At present this cannot be done, and the Textile Department has to depend, for the small quantities of yarn it requires, upon the kindness of the trade dyers. This arrangement limits the range of colours it is able to employ. To make good this deficiency Mr. Lodge tells me that a machine of the Obermair type would be necessary. It would cost about £50. There is sufficient unoccupied space for the machine in the dyehouse as at present arranged. The second defect is the lack of a " Dufton-Gardner " lamp, in order that colours may be accurately matched in dull weather or at night. At present no work which involves accurate colour matching can be done in the evening classes. The third cause of the failure of the Dyeing Department to secure a better attendance of day students is the lack of co-ordination between the dyeing courses and the textile courses. There should be a general three years' course of technical training for the textile industry, and in this course instruction in dyeing should have its due place. Moreover there has been too much separation in the past between the Dyeing and the Chemical Departments, but this unwise division is happily being removed. The fourth cause seems to be a certain apathy towards the scientific study of dyeing which is noticeable among many of those

engaged in the textile trade of Huddersfield. I am told that the number of technical experts who are employed by the foreign colour-makers to introduce their processes is increasing very much. The services of these foreign experts are being more and more requisitioned by the actual dyers, with the result that the dyers are growing less and less masters of the scientific aspects of their own business. Is it not desirable that the Huddersfield trade should have in its service a large number of scientifically trained dyers, with sufficient scientific knowledge to be independent of the drysalters and foreign experts ?

But, in addition to the dyers, colour makers and makers of dyers' chemicals also form a large proportion of the students in the Dyeing Department. A knowledge of the processes in which their colours are to be used is frequently of the greatest service to them. One class of textile workers who often have little knowledge of the properties of the colours are those engaged in the scouring and finishing branches of cloth manufacture. As a consequence of their want of knowledge, I am told that a great deal of perfectly avoidable damage is done, the cloth being subjected to treatment quite unsuited to the colours which have been employed in the dyeing.

A fourth class to whom a knowledge of dyeing should be an advantage are the mill managers, who have the oversight of the dyeing departments in their various factories.

All these classes are necessarily largely represented in Huddersfield, and it would seem to follow from this that the Dyeing and Chemical Departments of the College have a very important part to play in the industries of the district.

(10) Department of Textile Industries.

At the date of the last census there were some 16,500 people within the borough of Huddersfield employed in textile industries, more than half of these being men, and four-fifths of them being engaged in the manufacture of woollen or worsted goods. The woollen trade is Huddersfield's staple, and therefore the Textile Department of the College should be the central point of all the technical instruction given in the Borough.

Mr. Edward Armitage has kindly prepared for my use the following analysis of the day students in the department during the last three

years, and has also supplied me with the number of students in the evening classes during the present session :—

ANALYSIS OF DAY CLASSES (TEXTILE DEPARTMENT).

Session.	Half.	Occasional			Half-Course.			Full Course.				Apprentices.				No. in each grade.				Total
		A*	B	C	A	B	C	A	B	C	D	A	B	C	D	A	B	C	D	
1903	1st ..	6	4	2	1	..	1	3	1	..	..	..	1	..	1	10	6	3	1	20
1904	2nd. .	6	4	2	1	..	..	3	2	..	..	..	1	..	1	10	7	2	1	20
1902	1st ..	4	6	1	..	1	1	1	1	..	..	1	..	1	..	6	8	3	..	17
1903	2nd . .	3	5	3	..	1	1	5	1	..	..	1	..	1	..	9	7	5	..	21
1901	1st ..	5	3	3	..	1	1	3	2	..	..	..	1	..	1	8	7	4	1	20
1902	2nd . .	7	3	..	..	1	1	6	2	..	..	..	1	..	1	13	7	1	1	22

* The letters A, B, C, &c., indicate first year students, second year students, and so on.

Occasional students are those who attend two or three half days a week. Half-course students attend in the morning or in the afternoon only and are therefore unable to take up the subsidiary subjects in art, chemistry, &c., prescribed for the full course students.

It is important to note, because of its bearing upon the question of the range of instruction which the College should provide, that there have been no third year students in the full course for the last three years.

ANALYSIS OF EVENING CLASSES—SESSION 1903–4.

(TEXTILE DEPARTMENT).

	Prep.	1st year	2nd year	3rd year	4th year	5th year	6th year	7th year	Total
No. of Students	18	36	31	13	8	3	3	1	113
Average Age	14¾ years	21⅔ years	20½ years	21¾ years	23½ years	24½ years	22 years	27 years	

The accommodation at the disposal of the Textile Department is not adequate either for the number of students under instruction or for the machinery already installed. The former deficiency is perhaps the more easily remedied, for, as in the case in most of the other departments of the College, the standard of the lower classes

is much below what it ought to be and the energies of the staff are largely spent upon elementary general instruction. Candidates for admission are subjected to a simple examination in arithmetic and drawing which no doubt turns back the most incompetent, but a large percentage of those who join the classes are so poorly prepared that they cannot at first be trusted to take notes on their own account. Existing educational institutions in the Borough do very little towards supplying students ; even the Technical College Day School of Science and the pure science classes of the College have not passed on ten students in ten years to the Textile Department. A better co-ordination of existing institutions will gradually remedy this, provided that the interest of employers and parents in the work of the department also revives. Meantime the entrance standard ought to be raised by degrees. The College must be recognised as a school of specialised instruction which can only be attended with profit by those who have already undergone a course of liberal education either in the secondary schools or in the continuation schools of the Borough.

The question of more floor space for the necessary machinery ought also to be considered. The large weaving shed is already inconveniently full and the power loom room, a badly lighted half basement, is quite inadequate. Four power looms have now to be accommodated in a space which is not more than sufficient for the proper working of two.

The time would seem opportune for the preparation by the special textile committee of a well thought out scheme for extending the department and for remedying the serious gaps in its equipment which I understand to exist. There are, I am told, operations concerned with the mixing of yarns and the scouring and finishing of cloth which are peculiar to the Huddersfield trade, but which cannot be illustrated with the plant now in the department. If this be so, and I must leave the decision of the point to experts, the efficiency of the department must be seriously impaired thereby.

Huddersfield cannot, of course, undertake the provision of a Textile University illustrating every process connected with the trade, but within a definite range the equipment of the Textile Department of the Technical College should be complete and beyond cavil.

Apart from maintaining the very useful evening classes (some of which might ultimately be carried on in other parts of the Borough so as to relieve the accommodation in the College) the essential thing at which it seems expedient to aim is the provision of a well-planned all-round day course of training for youths who intend to enter the textile industry. This course should be practical in character, exacting in its thoroughness, and should take up the student's whole

time for three years. It should aim at giving a complete illustration of the textile processes so far as they are distinctive of the locality. It should include a course in chemistry and dyeing, and sufficient instruction in mechanical and electrical engineering. It should, as already in Huddersfield, be closely connected with the art course, and for the study of fibres there should be association with the Biological Department. The departments concerned should be united by means of a common Board of Studies, to secure complete co-operation and unity of purpose. This systematic three years day course should be pressed upon students and upon the attention of the public and of the trade. No dilettante work should be allowed. Casual attendance should be sternly discouraged. Hard work should be insisted on. Sufficient general attainments should be required of every student before admission to the course. And no expense should be spared in making the equipment and teaching staff thoroughly adequate to the purpose in view. After completing his three years' day course, the student would pass into the mill, attending special evening courses of instruction at the Technical College.

The old apprenticeship system gave a valuable technical training according to the needs of the time. But the old order has changed. Thoroughly equipped technical schools, with really practical teaching based on a sound scientific foundation, are now needed to give the best preparation for success in the textile industries. Such a course as is outlined above would, I believe, be a very valuable introduction to practical work. And it would enable promising boys, who do not happen to possess private influence, to gain the skill and knowledge which would help them to obtain, in due course, posts of responsibility in the mills.

(11) Art Department.

The Art Department is at the present time the largest of the College departments. There were in March last, exclusive of the School of Science pupils, 408 students in attendance, 236 being day and evening students, 98 being pupil teachers, and the remaining 74 being head teachers of elementary schools in the West Riding who were attending a special course in drawing by arrangement with the County Council of the Riding.

The number of branches of art work which are studied in the department is 26, and includes most of the subjects recognised by the Board of Education from advanced freehand to the study of the life. The craft subjects taught include wood-carving, stone-carving

for monumental masons, painters' and decorators' work, lithographic drawing and designing, repoussé work and enamelling on metals. Special arrangements are made for textile students who study freehand and model drawing in the first year of their course, and plan drawing and historic design in the second.

The co-operation of the local society of Master Painters and Decorators has been secured, greatly to the advantage of the classes in which they are directly interested.

Mr. George Marples, the lecturer in art, has under him a staff of five permanent and four occasional teachers. Eleven rooms in the College are given up to the School of Art.

The bearing of good art teaching upon the industrial interests of Huddersfield is very close.† The co-operation of the Art and the Textile Departments is therefore a matter of great importance, and I was glad to find that it would be possible for students to draw their designs under Mr. Marples' supervision and to carry them out under that of Mr. Armitage. It is to be regretted that there are at present no students sufficiently advanced to do this.

The size of the Art Department (it contains about one-third of the pupils in the College) and the fact that it is more self-contained than most of the other departments lead me to think that the time will very shortly arrive when the desirability of establishing it as a separate school in a building of its own must be considered. If this were done a re-arrangement of the departments might follow which would enable more space to be given up to the Textile Department.

(12) Department of Domestic Economy.

In this department there are classes in needlework and dressmaking, millinery and cookery. Exclusive of the School of Science pupils, there are 2 day students in needlework and 6 in dressmaking. In cookery there are 14 day students. The number of evening students is as follows :—

Needlework	2
Dressmaking	16
Millinery	9
Cookery	10
Total	37

† See Chapter X. of this Report.

Cookery, needlework and dressmaking also form part of the curriculum in the Education Committee's evening continuation schools, where much lower fees are charged than at the College. It is a question to be considered whether the College classes should not be merged in the continuation school classes. The College Higher Grade Cookery Centre might possibly be developed into an evening school of domestic economy, if it were re-inforced by the students now in the Technical College.

(13) Department of Education.

In connexion with the Department of Education at the Technical College, the chief question which arises is whether it would be wise to take steps to establish a Day Training College for men and women preparing themselves for the profession of teaching in public elementary schools. Upon this subject opinion is divided. I am told that about 80 pupil teachers (Borough and County together) come out of the Huddersfield Pupil Teacher Centre in one year. Mr. Gaunt informs me that the greatest number of students who have gone from Huddersfield to a Training College in any one year is 18. The salaries offered to ex-pupil teachers attract considerable numbers of the other students to take up teaching work in the schools at the earliest opportunity. Mr. Gaunt thinks that when account is taken of the numbers who go to Training Colleges at a distance and of those who seek an immediate engagement in the schools, it would be imprudent to depend upon any considerable proportion of students desiring to enter on the course of a Day Training Department at the Technical College. On the other hand, I found that other experts were more sanguine and believed that, in time, a Day Training Department at the Technical College might be attended by as many as forty students. A Training College of this size would, however, be relatively expensive, owing to the smallness of its numbers.

It is generally agreed that the accommodation at the Training Colleges for elementary school teachers is at present insufficient for the needs of the country. The increased provision of professional training for those who will teach in the elementary schools is thus a matter of national concern in which an important borough like Huddersfield might well bear a part. It would be a convenience to many Huddersfield students to have a Day Training College close to their doors, and its unsectarian character would be specially acceptable to many of them. On the other hand, the University Day Training College at Leeds is near at hand,

and offers opportunities for academic training which Huddersfield can never hope to provide. And it would be detrimental to the interests of the Huddersfield elementary schools if a very large proportion of the teachers spent all their student life, from first to last, in the Borough and missed the educational benefit of associating during their Training College days, with students from many other parts of the country.

It will be agreed that the first and most pressing claim upon the energies of the Principal and teaching staff of the Technical College will be the improvement and concentration of the *technical* work of the institution. Anything that would divert their attention from this urgent task would be greatly to be regretted. To build up a successful Day Training College is no light matter. Is such an undertaking really compatible with the immediate duty of making the Technical College directly useful at all points to the trades of the Borough ? Would it not be wiser to focus thought and effort for a time upon the improvement of the technical departments of the College and to allow the question of establishing a Day Training Department to stand over for the present ?

It is by no means clear to me that, when the cost of improving the technical departments of the College is faced, the Committee will feel that they can prudently afford the outlay which would be entailed in maintaining a staff of teachers really adequate to the work of carrying on a good Day Training College. If, however, it is thought desirable to have a Day Training Department, it would be well to invite the co-operation of the West Riding County Council in the undertaking.

And, in any case, no pains should be spared in offering stimulating and attractive courses of instruction for the benefit of the teachers already at work in the schools of the Borough. It would also be well to consider the advisability of requiring all teachers in the service of the Committee to take their certificate. The Certificate classes held at the Technical College would then be more largely attended.

Miscellaneous Evening Classes.

For certain isolated subjects provision is made in the evening classes only, the attendance at which may be tabulated as follows :—

Class Entries.	
Physiography	9
Geology	6
Mine Surveying	9
Principles of Mining	13

Gas Manufacture (Ordinary)	5
,, ,, (Honours)	4
Plumbing, Theoretical (2 classes)	23
Plumbing, Practical (3 classes)	20
Hygiene	11
Total	100

The College Library.

Reference should also be made to the College Library and Reading Room, the Gymnasium, and the Athletic Club. The Library was originally open to subscribing members, whether students at the College or not. Since the opening of the Municipal Free Library, however, the general public have made less and less use of it, and I understand that it is in contemplation to limit membership to the students. A good collection of reference books on scientific subjects is absolutely necessary to the efficiency of such an institution as the College, and the systematic development of the present library in this direction is to be desired.

The Evening Continuation School at the College.

In addition to the classes already mentioned, a small continuation school for instruction in reading, writing, arithmetic, geography and mensuration is conducted at the College for two hours on three evenings a week. The numbers and average attendance for each subject were, in March last, as follows :—

	Number on register.	Average attendance.
Reading	12 ..	7
Writing and Composition	15 ..	9
Arithmetic	16 ..	14
Geography	13 ..	11.5
Mensuration	14 ..	9.1
Totals	70 ..	50.6

Since the evening continuation classes in the elementary schools have become better known, the attendance at this evening school has dwindled very much.

In present circumstances, the Evening Continuation School does not form an appropriate part of the work of the Technical College. The time seems to have arrived when it can well be abolished.

To sum up, I would urge that no effort should now be spared to strengthen those departments of the College which stand in vital connexion with the staple industry of the district, and to correlate them one with the other. The central feature of the work of the College should be a course of technical training, occupying the whole time of the student for three years, and specially planned to meet the needs of youths intending to enter the textile industry of Huddersfield. The staff of the College should be kept thoroughly in touch with the actual conditions of manufacture, and the equipment should be adequate to any demand which may be made upon it.

One of the greatest sources of weakness to the College is that it has not yet won the full confidence of the manufacturers of Huddersfield as a whole. Manufacturers have, it is true, supported the school well by their money, but they have done but little to give that not less indispensable support which consists in sending their own sons and employés to the classes and in being willing to pay a higher commencing salary to a scientifically trained man. Here and there a firm pays fees for its apprentices or gives prizes. But it does not seem to be considered worth anybody's while to grant special facilities in order that apprentices and workmen may be compelled or induced to attend the College classes. Until the steady support and interest of the employers is gained, the College will never rise to its proper height of efficiency.

The College suffers also through the lack of a constant supply of students of sufficient general education to profit by its opportunities. The remedy for this evil lies in the improvement of elementary, and still more of secondary, education. In almost every department the same complaint is heard of students who cannot draw a passable diagram, who cannot take notes for themselves, who do not know the ordinary rules of arithmetic. It is no exaggeration to say that the whole level of the instruction is dragged down by the necessity, which the lecturers are under, of teaching their students things which they ought to know before they enter the classes. Much educational waste is caused by the gap which generally occurs between the time at which the pupils usually leave the public elementary schools and that at which they are old enough to seek admission to the Technical College. The want of co-ordination between the evening continuation schools and the College is another cause. The failure of the secondary schools to feed the College classes is a third. These defects will, I hope, gradually be remedied and a steady supply of well qualified students will be found. But at its best the supply will have its limits both of quality and quantity. The boundaries of the gathering ground are very clearly demarcated, and many Huddersfield students

will always make their way to Universities or University Colleges in Great Britain or abroad. Nevertheless, a great work lies before the College—a work indispensable to the future interests of the Borough. But in view of the costly and concentrated effort which will be required in the purely technical departments, I feel that it would be fatal for the College to attempt at present indefinite extensions in many directions, which would dissipate its moral and material resources.

In conclusion, it remains for me to touch upon a point of organisation. At present the Technical College Committee and the Education Committee are separate and co-ordinate bodies. Historical reasons explain this separation, but the time seems now to have come when the two committees should be amalgamated. Unity of administration will make for greater unity of educational purpose.

CHAPTER VIII.

The Evening Continuation Schools.

During the session 1903–4, evening continuation classes for young men and boys were conducted at nine centres in different parts of the Borough, and for girls and young women at three centres. For the purposes of this report four of the centres were visited during the month of February. The classes met upon three evenings in each week from the end of September to the end of March.

In order that there might be no competition between the evening schools and the Technical College evening classes—and in all that follows it must not be forgotten that were nearly 1000 evening students during the same session at the Technical College—the continuation school work has been in the past severely restricted in range. In dressmaking only does there seem to be any overlapping between the schools and the Technical College. The subjects taught have been almost entirely those included in Division I. of the Board of Education's Evening School Regulations: reading, composition, writing, arithmetic, knowledge of common things, elementary drawing, etc. The exceptions have been woodwork and ambulance for boys, and dressmaking, needlework and cookery for girls. Fortnightly lantern lectures in history and geography have also been given.

The fare offered has been rather meagre, and it is quite evident that the evening schools as a whole have failed to reach more than a small minority of those for whom they are intended. The total number of pupils registered during the session was only 958, an average of just under 80 to each school. Moreover the standard of instruction is low. Most of the work is very elementary and the programmes of study only extend over a single session: as one teacher put it "they forget in the summer what they learn in the winter." The great cause of weakness in the evening schools in Huddersfield, as elsewhere, is the readiness with which the day school scholars turn their backs upon all education which is not by law compulsory. For two or three years after leaving the day school they run wild as far as education is concerned, and very soon forget much of what they have learned. The evening school teachers are thus compelled, for the most part, to spend their strength doing the elementary work

all over again. Here and there the personal influence of a teacher has induced a handful of boys and girls to join the evening school immediately after leaving the day school; it is significant that the brightest of the classes visited contained 40 per cent. of pupils who had thus come straight on to the evening school.

The teachers themselves were keenly aware of the poor standard of the work. Upon all hands I was told that the only remedy was statutory compulsion.

Another point upon which the evening continuation classes are open to criticism is the attendance. In the table below, which has been prepared at my request by the Education Office, are given the highest number on the register of each school at any time during the session, the average attendance for the session and the numbers of those who were entitled to the return of the whole or the half of their fees on account of an attendance of 95 and 75 per cent. respectively of the total number of hours possible. From this it will be seen that, while about 57 per cent. of the numbers enrolled are very regular in attendance, the remainder either drop off entirely or attend perhaps one meeting out of every two or three.

	Highest number on register.	Average attendance per session.	95% of possible attendances.	75% of possible attendances.
Beaumont Street ..	116	72	56	7
Berry Brow	62	42	31	5
Crosland Moor	66	50	41	4
Deighton	93	64	50	5
Hillhouse	79	49	32	6
Moldgreen	64	36	26	1
Mount Pleasant ..	99	65	50	7
Oakes	66	48	38	5
Outlane	54	36	27	2
Paddock.....	52	37	27	5
Spring Grove	143	88	65	10
Stile Common	64	48	37	9
Totals ..	958	635	480	66

In order to arrive at some estimate of the numbers who drop out during the session, I have obtained the numbers on the registers and the average attendances for two representative weeks, early and late in the session. In the week ending November 6th, the total on the registers was 874 and the average attendance 689. For the week ending February 26th, the same figures were 721 and 580. The falling off in the numbers on the registers and in the attendances is

respectively 17 and 15 per cent., a decline serious enough in itself, though, in this respect, Huddersfield does not contrast unfavourably with other towns.

A final criticism upon the continuation schools would appear to be that they do not at present lead up to the work of the Technical College. Inquiry has failed to discover that any appreciable number of students are passed on to the College from the evening continuation schools.

In discussing evening continuation schools , we must never forget that practically all the students in them have done a day's work before the school opens. As one writer expresses it " the problem of the evening school is the tired boy." And this is certainly not less true in Huddersfield than in other large manufacturing centres. If the schools are to obtain and to hold pupils under these conditions, then they must adapt their methods and their curricula to the special needs of the case. The subjects must interest the pupils, and the methods, while not ceasing to be educational, must be fresh and attractive. In one subject at least this is already well understood in Huddersfield. The wood-work syllabus, though based upon that used in the day schools, is varied with the express object of interesting the students, and the result is that the subject is exceedingly popular and the classes hold well together through the session. Drawing can be similarly handled and with as good results. The lantern lectures in history and geography are a step in the same direction. It would also be desirable to do more in the way of teaching civic duty in our evening schools. Rightly treated there can be no more interesting subject for youths who are growing out of boyhood ; and no lessons can be more valuable for them than those of national and civic duty. In connexion with the curriculum of the evening schools for women and girls, I would also ask the Committee to consider the desirability of organising classes in laundry work.

Further, more freedom in the choice of subjects might well be allowed to the students. As things are, a young fellow who wishes to take woodwork, or a young woman wanting to learn cookery, is expected to attend for at least two whole evenings a week and to take other subjects in which he or she possibly feels not the slightest interest. There is much to be said for keeping boys and girls who have just left school to an all-round curriculum, but in the case of their elders more freedom is desirable. To take a concrete example, it is hardly to be expected that a married woman who wishes to learn dressmaking should be willing to attend two nights, for an hour and a half each, for the sake of a single lesson in her chosen subject. As

far as possible, students should be classified according to age, and for those who are no longer boys and girls the necessary restrictions should be very few.

In order that the day school scholars may be induced to attach themselves early to the evening schools, it might be advisable for the Committee to consider whether boys and girls in the sixth and seventh standards should not be permitted to attend the evening classes once or twice a week for such subjects as wood-work, drawing, and physical exercises, for the lantern lectures, and, in the case of girls, for domestic subjects. On such students, of course, no Government grants could be earned, but if the experiment brought about any abridgement of the gap between the two schools the additional expense would be entirely justified.

With no part of the educational machinery of the Borough will the correlation of the Technical College be easier than with the continuation schools. This correlation is vital to the success both of the Technical College and the evening schools. Three departments of the Technical College will be directly and immediately concerned in this correlation. In the first place the drawing in the continuation schools, and indeed in all the schools of the Borough, ought to lead up to the Art Department of the College, and should therefore be under the direction of the head of that department.* In the second place, much of the commercial work now being done in the College would find its more appropriate place in a higher continuation centre, intermediate between the College and the ordinary continuation schools. In the third place, the Engineering Department of the College is full to overflowing on some evenings in the week. Some of the preliminary classes might with advantage be moved out to one of the continuation schools. For this purpose, Mount Pleasant or Hillhouse would perhaps be as suitable as any in point of situation. This school would then form another higher centre. But though removed from the Technical College, the work at these higher centres should continue to be under the direction of the respective heads of the College departments concerned.

The large area of the Borough renders it very difficult to centre in the Technical College all the work that is not purely continuative. As the need arises, the establishment of other higher or intermediate centres in more remote parts of the Borough may well be considered.

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* See Chapter X. An intermediate evening School of Art, as suggested by Mr. Dennis, will probably be found a desirable addition to the educational equipment of the Borough. Such a school would be organised under the Evening Continuation School Code. It would do work intermediate between the elementary drawing of the ordinary day and evening schools and that of the Art School at the College.

Moreover, it seems desirable to consider the advisability of organising, at some convenient centre, an evening school of domestic science.

But whatever administrative steps may be taken for the improvement of the evening schools, their success can ultimately be assured by one thing and by one thing only. They must float upon a rising tide of public interest in education and of public belief in its value. The pioneer work of the late School Board in more than one direction, and the growth of the Technical College, are evidence, if evidence were needed, that Huddersfield has never been without men and women who know the worth of education, and who are ready to make sacrifices to bring it within reach of their fellow townsfolk. But one fails to find that their faith has, as yet, diffused itself through the great mass of the community. Upwards of ninety per cent. of the children in the elementary schools of the Borough are removed by their parents under the attendance qualification at thirteen years of age. The system of merit certificates, awarded to those who have completely passed the seventh standard, is only really operative in one school apart from the Higher Grade School. These facts indicate a widespread indifference which kills educational effort, as surely as frost kills a budding plant. Until the evening schools can depend for support upon the influence of the community, and of the homes that form the community, being exerted steadily in their favour, we must make up our minds to endure much discouragement, much loss of power, and much apparent failure.

In conclusion, I would express the hope that the employers of Huddersfield may see their way to do more to induce the young people in their employment to attend the evening schools. In many parts of the country there is an encouraging movement in this direction.

CHAPTER IX.

Suggestions for a Scholarship System.

Owing very largely to the public spirit and generosity of the present citizens of Huddersfield, the immediate task of the Education Committee is not the establishment of an entirely new set of scholarships appropriate to the new conditions set up by the Act of 1902. It is rather that of systematising and co-ordinating facilities which already exist and of adding to them where they are incomplete or inadequate.

In the following table I have set out those scholarships of whose existence I am already aware. I shall afterwards discuss the questions of their co-ordination and of the additions which seem necessary.

The Technical College.

Day Scholarships.

The Martin-Fisher Scholarships :—two in number, each of £70 a year, given for the promotion of commercial education. The holders to enter the service of a foreign firm for the year and to report every six months to the Huddersfield Chamber of Commerce and to the Governors of the Technical College in the language of the country in which they are living at the time. Limited to students at the Technical College.

The Blamires Scholarship :—£15 per annum, together with fees, tenable for two years and renewable for a third. Open to male students who are not less than 16 years of age. Awarded for science (chemistry and physics being of primary importance) and mathematics, credit being given for knowledge of French or German.

Armytage Scholarships :—five in number, and of the value of £10 a year, together with fees ; tenable for three years. Open to boys and girls between 15 and 18 who have previously attended public elementary schools for three years. Subjects : mathematics, two Science and Art or City and Guilds subjects, and two languages.

Armytage Exhibitions :--two of £20 each, tenable for two years at a University or such other place of advanced technical or scientific instruction as may be approved by the Governors. Open to students of the College of three years' standing who have passed the Matriculation Examination of London University.

Woodhead Exhibition :—£10, together with fees. An art scholarship tenable for one year. No limit of age or sex. Some knowledge of a modern language required.

Huddersfield County Borough Scholarships :—ten in number, carrying free tuition, and each tenable for three years. Candidates must be not less than 14 years of age, and must have resided within the limits of the Borough for a year previous to the examination. Subjects : one language, mathematics, and three Science and Art or City and Guilds subjects.

Harrison Scholarships :—Open only to descendants of the late John Harrison.

Evening Scholarships.

Armytage Scholarships :—Four of £2 10s. each, together with fees. Tenable for one year, no limit of age. Subjects as for Armytage Day Scholarships, save that only one language may be taken.

Huddersfield County Borough Scholarships :—twenty carrying free tuition, tenable for one year, no limit of age. Subjects : one language, mathematics, and one from the Science and Art or City and Guilds of London Institute Directories.

Harrison Scholarships :--Open only to descendants of the late John Harrison.

In June, 1904, the Corporation offered 150 Evening Scholarships tenable at the Technical College. (These are in lieu of the " Presentee Studentships " which were in the gift of subscribers to the College who had the right of presenting an evening student for admission to the College at half-fees. When the Corporation took over the College the annual subscriptions ceased.) The examination for the new evening scholarships was based upon the work of the sixth and seventh standards, including algebra. Candidates obtaining 75 % of the marks to receive free admission to the evening classes at the College ; those obtaining more than 50 % but less than 75 % of the marks to be admitted at half-fees. As a result of the examination, 8 students were granted free admission and 54 were admitted at half-fees.

Almondbury Grammar School.

Twelve free places for boys who have resided during the previous three years within the ancient parish of Almondbury; eight of them being further limited by the condition that the holders must have been, during the previous three years, educated in public elementary schools.

£50 annually to be spent in maintenance allowances of not less than £10 nor more than £25.

College Higher Grade School.

Three Science and Art Scholarships (the Sir Thomas Brooke, the Dawson, and the Industrial Society) tenable each for three years, being of the value of £9, £12 and £15 for each of the years. The other conditions being the same as in the case of the Science and Art Scholarships at the Technical College.

The College Old Boys' Scholarship of the value of £50 per annum. Tenable for three years at a University or University College in the United Kingdom. The holder to have previously matriculated at the University of London in the first division, after a regular attendance for at least two years at the Technical College or at the College Higher Grade School.

Fartown Grammar School.

Two Holroyd Scholarships of the annual value of £6, and entitling the holders to exemption from tuition fees, tenable for two years at the school. Candidates to be under 12 years of age, and in attendance at a public elementary school in the Borough. The subjects of examination to be those ordinarily taught in the fifth and sixth standards of a public elementary school.

Longwood Grammar School.

Six Foundation Scholarships, each tenable for two years, and entitling the holders to exemption from tuition fees. These scholarships to be competed for by boys who have been educated during the preceding three years at any public elementary school in Longwood, Golcar and Milnsbridge. One scholarship in each year to be awarded in each of the three districts.

One free scholarship, maintained by the Horsfall Fund.

One free scholarship, maintained by the subscriptions of the old boys of the School.

There is also a scholarship for boys who have studied classics and mathematics in Huddersfield schools.

GENERAL.

The Varley Scholarship :—tenable at any University in England by an undergraduate who has for a period of not less than three years previously been educated in classics and mathematics at some school or schools in the Borough of Huddersfield. The whole income of the Charity (about £30 a year) is, subject to payment of costs of administration, devoted to the maintenance of the exhibition.

At the outset of my suggestions for augmenting and developing the existing groups of scholarships, it will, I think, be useful to draw a distinction between two things which, though often combined, ought not to be confused. I refer to scholarships and what are usually called maintenance allowances. The tenure of a day scholarship imposes upon its holder a postponement of the period of wage earning. Properly utilised, however, it augments the economic value of the scholar to an extent which far outweighs the immediate disadvantage. In the case of parents who are in a position to support their children during the extra two, three, or four years of school life it should be sufficient that the scholarship covers the school fees, together with any extra educational expense that its tenure involves. The community provides these, and the parent is called upon to sacrifice the small immediate returns of their child's labour. If he is not prepared to make the sacrifice, it is not likely that he will co-operate in the right spirit in the further education of the child, and from the outset one of the first conditions of success in the transaction will be wanting. There remains the varying, but not generally large, number of cases in which the parent's circumstances require that the child shall contribute from the earliest possible moment to his own maintenance. In such cases, and only in such cases, monetary aid should be given over and above the value of the scholarship. But the award of this additional assistance will be based upon quite other considerations than was the award of the original scholarship.

I would submit that a separate maintenance fund is a necessary complement of all scholarship schemes. It should be privately administered after private inquiry into the circumstances of each case, with due regard to the family income of the applicants and with sufficient elasticity to meet varying needs.

The alternative to this separate maintenance fund is that certain of the scholarships should be much more valuable than others, the whole number being thrown open to competitive examination. Under such a system it might easily happen, as it has happened in similar cases in the past, that the maintenance allowance became mere pocket money for a scholar who had no need of it, while the really poor were sent away empty.

The administration of a fund of this character would not be easy ; but no successful scholarship system can be easy to administer. Every scholarship granted is a fresh experiment in human material demanding intelligent care in its award ; and, if the system be left to run itself, there is much risk of mistakes being made and a likelihood of considerable waste of the resources of the Borough.

The free education provided in the Higher Grade School is, of course, a scholarship for every pupil in that school. The minor scholarships which would carry pupils from the sixth and seventh standards of the elementary schools, from Fartown, Longwood and from recognised private schools, to the proposed new Municipal High School for Girls and to Almondbury Grammar School, should be awarded not later than the beginning of their thirteenth year, and only to children who, accidents apart, would remain for the full four years of the secondary school course. It would be prudent to offer not more than ten such scholarships in the first competition, five for boys and five for girls, From the beginning a high standard should be insisted upon. If the competitors do not reach that standard, the scholarships should not be awarded. Quality, not quantity, is the thing to aim at. When it is realised that to be a Town Scholar is itself a hall-mark, there will be no lack of well qualified competitors. The maximum number to which it would probably be wise for the Committee to proceed is thirty. This would mean that at any one time in the two schools there would be a hundred and twenty town minor scholars. By the time that number is reached the new girls' school should have between a hundred and two hundred pupils. The proportion of minor scholars would be high in both schools, and especially so in Almondbury Grammar School.

In the award of these minor scholarships anything of the nature of " cram " should be discouraged. The mental power of a child is soon used up if exposed to an unnatural strain. We do not want our scholars exhausted at the start. The subjects of examination therefore should be kept close to the teaching in the schools. There should be nothing additional save a test of general intelligence. In the second place, considerable stress should be laid upon the results of an oral examination, both for the reason that the work of selection is

greatly aided by a personal interview, and because young children find written composition a stiff and unnatural medium of expression. Thirdly, the selection should be made by skilled teachers. I should recommend the appointment by the Education Committee of a small examining board of both primary and secondary teachers in the Borough, with the Principal of the Technical College, or some other qualified and independent person, in the chair.

I have already mentioned the free places in Almondbury Grammar School and the scholarships at Fartown and Longwood. Pending the complete reorganisation of the secondary schools of the Borough, for which the time does not at present appear ripe, the Fartown and Longwood scholarships should be left as they are. As, however, the Higher Grade School will provide an opportunity more suitable for most boys in the elementary schools of Almondbury than would the reorganised Almondbury Grammar School, I would recommend that an application be made to the Board of Education for leave to suspend some or all of these scholarships, and to divert the funds thus set free to general school purposes. With the support and the resources of the Education Authority at its back, the Almondbury Grammar School should very soon take a position such as it has never had in the past. But, in return for this, some of the special educational privileges of the ancient parish should be shared with the educational area of which it is itself a part.

Ultimately it would be advisable that the scholarships attached to individual school foundations within the area be made uniform as to tenure and award with those granted directly by the Education Authority of the Borough. But that, of course, cannot be brought about until the opportunity arises for the Authority to assume a greater measure of responsibility for the schools concerned. In the case of Almondbury only does it seem to me that that opportunity has at present arisen.

At 14 years of age most of the girl minor scholars and some of the boys, together with other pupils in the secondary and higher grade schools, will be prepared to accept the special pupil teacher bursaries which the Committee has already begun to award. It is to be hoped however that not a few boys who have completed the course, ending at 15, in the higher grade school or the four years' course at the secondary schools, will desire to continue their education in the applied science departments of the Technical College. It is among these boys that the day classes of the Technical College, and through this channel the industries of Huddersfield, should find their best recruits in the future.

The bringing of the College Higher Grade School under the Higher Elementary School Minute would incidentally render its pupils eligible for the three Armytage Scholarships, already mentioned, which are tenable at the Technical College and fall vacant every year. In effect these scholarships would doubtless fall to pupils in the Higher Grade School. The examination for them is already very much on the lines of the curriculum of the school, and probably hardly needs modification.

Scholarships should also be provided to bring on to the Technical College Huddersfield boys who have completed the four years' secondary school course either in schools of the Borough or in boarding schools elsewhere. For this purpose the conditions upon which the ten County Borough Scholarships are awarded might well be revised. The age limit would require to be raised and the subjects on which the award was made should be brought into line with those of the Secondary Day School Curriculum as laid down in the Board of Education's Regulations.

These two sets of scholarships drawing on youths to the Technical College at the completion of the higher elementary school course, or of the secondary school course, are virtually "intermediate" scholarships, and this name, which is now generally used, might well be attached to them.

Of the other College scholarships, the Blamires will probably, if it is a trust scholarship, have to be left as it is; the Woodhead Exhibition I shall speak of presently in connexion with the School of Art.

A few of the boys at Almondbury may be expected to remain beyond the four years' course to prepare for the older Universities. To meet their case there should be a provision in the scholarship scheme whereby a minor scholarship could be extended for the two years from 16 to 18 in cases of special promise, if the Committee were satisfied that extension would assist the holder to go to one of the Universities.

All the foregoing scholarships, and also the pupil teacher bursaries, should, I think, carry with them a grant of about £1 or £1 5s. per annum towards the purchase of school books and apparatus. They should also carry the right to a further allowance in aid of maintenance where such assistance was justified by the circumstances of the scholarship holder. The free admissions to the Higher Grade School should, I think, also carry this claim upon the general maintenance fund, at any rate during the last year of the course.

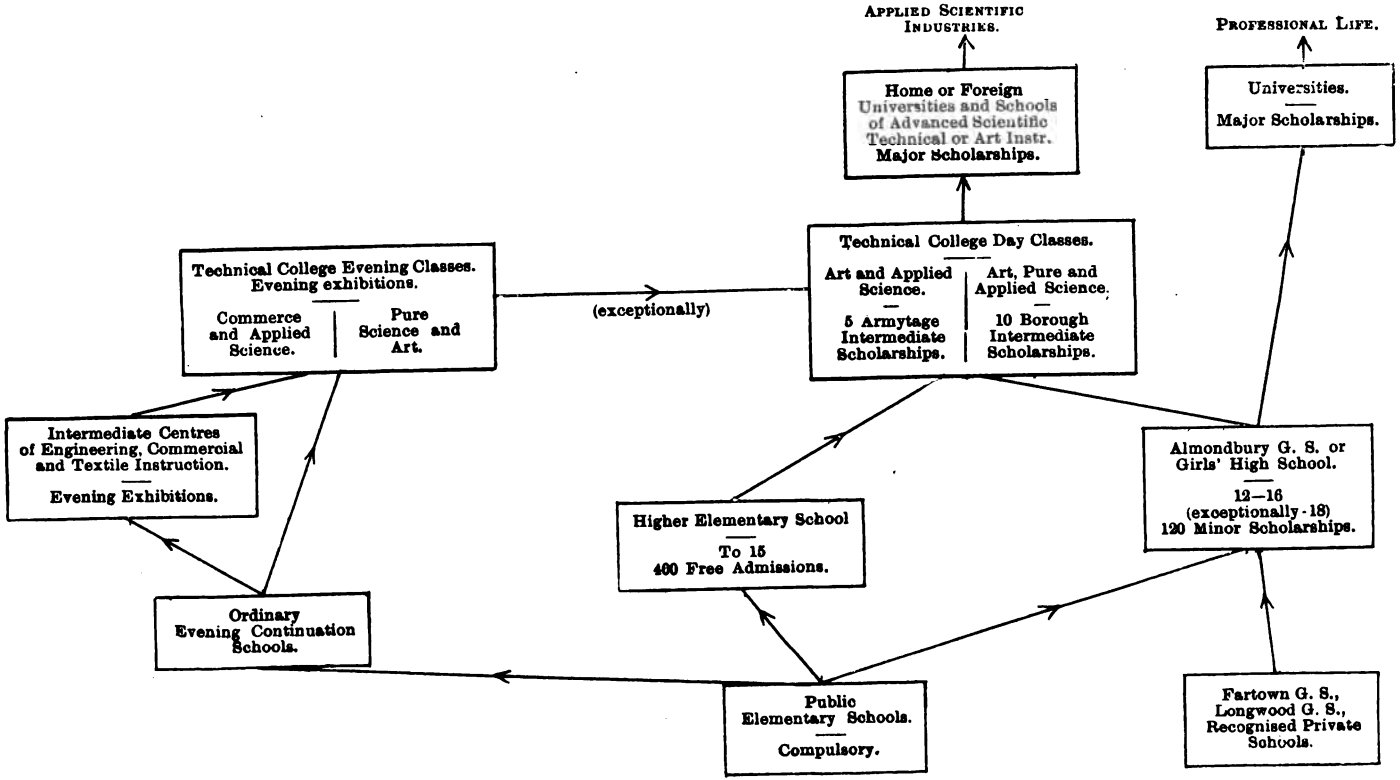
At present, with the three notable exceptions of the travelling scholarships founded by the generosity of Mr. Edward Fisher and Mr. Henry Martin, of the College " Old Boys " Scholarship, and of the Varley Scholarship, there is no provision for helping students to continue their education outside the Borough of Huddersfield. Of candidates for such " major " scholarships, there would, if the general plan suggested in this report came into operation, be two groups. First, a few boys and girls who would have remained at Almondbury and the new Girls' High School up to 18 years of age in order to prepare for entrance at one of the Universities. Second, a group of students in the pure and applied science departments of the Technical College who would have completed there a three years' day course and whose ability might warrant a continuance of their studies under the recognised masters of their subjects in English or foreign Universities or Technical Institutions of University rank.

By the time a student is 18 or 19 years of age, he should have given manifest proofs of his intellectual calibre. In place of awarding every year two or three major scholarships of fixed amount and submitting the candidates to the ordeal of a written examination, I would recommend to the Committee the adoption of the following plan. Let each candidate for a major scholarship submit (1) a record of his or her educational progress, and testimonials as to character and ability from his teachers; (2) a statement of his own and his parents' circumstances; (3) a proposal for a future course of study explaining where, with what object and at what cost, it is desired to continue his or her education. With these documents before them the Committee should have little difficulty in deciding in what cases to make a grant and to what amount. The opportunities for higher education are very varied and require much elasticity of method in dealing with them. For the purposes of these major scholarships, from £300 to £500 per annum might very well be set aside, but the allotment of the money should depend entirely upon the applications with which the Committee had to deal.

Hitherto I have only referred to the day classes of the various schools and of the Technical College. The evening work of the College, however, is at least twice as great in bulk as the day work, and it is likely to remain so, for an increase in the one will be accompanied *pari passu* by an increase in the other.

Evening school exhibitions might well be offered to students who have completed a good session's work in the ordinary continuation schools or other evening schools of the Borough. To bring these students on to the intermediate centres, or to the Technical College in the case of those subjects for which no intermediate centre is provided,

The Scholarship System.


Applied Scientific Industries.
Professional Life.
Home or Foreign Universities and Schools of Advanced Scientific Technical or Art Instr. Major Scholarships.
Universities. Major Scholarships.
Technical College Evening Classes. Evening exhibitions.
Commerce and Applied Science.
Pure Science and Art.
(exceptionally)
Technical College Day Classes.
Art and Applied Science. 5 Armytage Intermediate Scholarships.
Art, Pure and Applied Science. 10 Borough Intermediate Scholarships.
Intermediate Centres of Engineering, Commercial and Textile Instruction. Evening Exhibitions.
Higher Elementary School To 15 400 Free Admissions.
Almondbury G. S. or Girls' High School. 12—16 (exceptionally 18) 120 Minor Scholarships.
Ordinary Evening Continuation Schools.
Public Elementary Schools. Compulsory.
Fartown G. S., Longwood G. S., Recognised Private Schools.

I would recommend the establishment of evening school exhibitions giving free admission to classes and a grant of 7/6 for books. These would be a development of the evening scholarships which have been offered by the Committee in the present year. At the end of the first session's work in the intermediate centres or in the Technical College. a further group of exhibitions, much reduced in number and carrying with them a grant of 15/-, should be available.

The object of these exhibitions would be, first, to stimulate the flow of students from the ordinary continuation schools into the evening technical classes, and, secondly, to encourage them to continue their evening work in the classes over at least three sessions.

The possibility of transferring an evening student to the day classes at the College is one which would call for the consideration of the Committee. The cases in which the first discovery of exceptional ability is made in the evening classes will probably be rare ; but when they occur they should not be neglected.

The consideration of scholarships to the Art School of the College I have left to be considered separately for the reason that the basis of their award will be *sui generis*. It should be made possible for pupils at the Higher Grade and secondary schools who show exceptional artistic ability to be transferred at the end of the course to the day art classes at the College, and evening class exhibitions for art should be provided to draw pupils on from the art classes in the evening continuation schools to the evening classes of the Technical College School of Art. In the School of Art itself the Woodhead Exhibition will help to retain promising students ; other exhibitions for the same purpose should be offered as occasion requires.

The Art School is second to no department of the College in its importance to the future prosperity of Huddersfield. But as I shall discuss in detail in the following chapter the measures which should be taken to correlate the instruction in art throughout the educational institutions of the Borough, there is no need for me here to do more than refer to the necessity for the provision of scholarships in connexion with that correlation.

Finally, I would suggest that, in planning their scholarship system, the Committee should consider the advisability of availing themselves of the grants made by the Board of Education to aid the foundation of local science and art scholarships (see Regulations for Secondary Schools, 1904-5. Appendix C.) §

§ Since this was written the Board of Education has announced its intention of withdrawing these grants

CHAPTER X.

The Teaching of Art in Huddersfield, and its bearing upon the Trade of the Borough.

Artistic design and good combinations of colour are year by year becoming more important factors in the manufacture and sale of textile fabrics. This fact is noticeable in most countries where popular education is organised on modern lines. The change is due to a number of causes, of which two are of special importance. Among the purchasing public, a far larger proportion than in former days consists of people who have been taught at school to notice design and to appreciate new and well-chosen combinations of colour. In the second place, among those engaged in the production of designs there is a increasing number of persons who have received a specialised art training. Thus supply and demand, ever re-acting upon one another, are being influenced in the same direction, and the industrial importance of an attractive and novel design grows year by year.

For these reasons, it has been found profitable in great manufacturing centres to make a systematic effort for the improvement of art teaching in all the schools attended by the children and young people of the community. It is not enough to have a School of Art devoted to instruction in drawing and design. The art teaching in all the schools should be so correlated as

(1) to produce a greater sensitiveness to artistic beauty throughout the masses of the population;

(2) to stimulate in individual children latent artistic gifts (which may lie undeveloped in the most unexpected quarters), to bring under the notice of the teachers children possessing such gifts, and to secure for them a progressive course of art teaching appropriate to their talent;

and (3) to lead up, with the least waste of effort, to the higher teaching at the School of Art, and to prevent the young people from being taught in their early years methods of work which they would subsequently have to unlearn.

The correlation of drawing and art teaching throughout the schools of the Borough has thus become one of the questions to which the Education Committee will find it expedient to give close attention.

But the matter has a still wider significance from an educational and social point of view. Art is not mere dexterity of the fingers, but sensitiveness to beauty. The teaching of it should not be regarded merely as a branch of technical training, but as an essential part of a liberal education. The chief aims which popular education endeavours to attain are :—

(1) The sound physical development of the rising generation.

(2) The training of the mind to observe truthfully, remember accurately, and reason closely.

(3) The development of the powers of expression, not only in words with the tongue and the pen, but also in line and colour with the pencil and the brush, so that young people may develop their personality to the utmost, and may be able adequately to express for themselves and others the thoughts and judgments which are formed in their mind.

(4) The learning of self-control, and the acquisition of habits of industry and obedience, of loyalty and unselfish comradeship.

(5) The gaining of the sense of reverence for unseen things ; and regard for what concerns spiritual, as well as for what concerns material, welfare.

(6) The fortifying of the character so that it may bear pain and danger, as well as prosperity, with self-control, dignity and composure.

Now in regard to the third of these points, viz : the training of the power of expression, the teaching of drawing and of other forms of art is an instrument of great value. It should not be regarded as a separate item in the curriculum, detached from other studies. As far as may be, it should be associated with other parts of the work of the school, *e.g.*, with the teaching of history, of literature, of geometry, of science. In different forms and stages it is important in every grade of education, from the infants' school upwards.

The opinion of those who have most carefully watched the work of elementary education in Huddersfield seems unanimous on the point that one weakness in the present order of things is its failure to stimulate and train the imagination and to cultivate the powers of oral and artistic expression. I venture to express the hope that the labours of the Committee may result in the removal of this weakness, which at present has an injurious effect upon the social welfare and the industrial capacity of the Borough. Not the least important part of the problem lies in the education of quite little children, from 6 to 10 years of age. That is the period within which most can be done to open the mind to good influences of all kinds, to stimulate the imagin-

ation and to give the right direction to the powers of observation. In no part of our educational system is it more important to have small classes, beautiful and airy classrooms and highly cultivated teachers, than in the stages of our public elementary education through which children pass between 5 and 10 years of age. It is in their work for little children of tender years that the American schools reach their highest point of efficiency and excellence. The effects of the first six years of elementary education can be distinctly seen in the buoyancy and quick intellectual interest which distinguish the masses of the American population. Such buoyancy, inventiveness and intellectual agility have an industrial value upon which it is unnecessary for me to comment.

Care should be taken in the elementary schools not to insist too exclusively on geometrical forms of drawing, or on work with the pencil to the neglect of work with the brush. I would urge that much more should be made of colour in the teaching of drawing throughout the elementary and secondary schools of Huddersfield.

It is desirable that a general plan for the teaching of art should be framed for the whole Borough (care being taken to correlate the drawing with the excellent woodwork course which has been drawn up by Mr. Spittle), and I would suggest that the duty of preparing such a plan should be entrusted to Mr. Marples, whose work at the Technical College is justly valued by those acquainted with its excellence. By co-operating in carrying out such a plan with enthusiasm, the school teachers of Huddersfield could render an important service to the Borough. It would be expedient to entrust to Mr. Marples the general supervision of the working of such a plan, though it is clear that his already heavy duties at the Technical College would not permit him to devote the necessary time to detailed superintendence.

It also seems desirable that Mr. Marples should be charged with the duty of training the pupil teachers and others engaged in the schools with a view to the carrying out of a large plan of improved art instruction throughout the Borough, and that the drawing in the evening continuation schools should be placed under his general supervision.

The Committee might find considerable help from a study of the steps which have been taken in Leicester for the correlation of art teaching. And in concluding this chapter, I would take the opportunity of referring to the valuable and practical advice on the subject which has been offered on more than one occasion by Mr. C. H. Dennis, one of His Majesty's Sub-Inspectors of Schools.

CHAPTER XI.

The Teaching of Domestic Science in Huddersfield.

The West Riding has long been famous for its skill in household management, and for the comfort of its homes. In few parts of England is there so valuable a tradition of skill in the home arts. At the same time, close observers are aware that industrial changes and the conditions of town life are impairing the strength of this valuable element in the social well-being of the West Riding. But never before has it been of greater importance to the nation to preserve a sound ideal of home life. The evidence given before the recent Departmental Committee on Physical Deterioration emphasises the importance of making systematic efforts throughout our educational system to give girls and young women practical instruction in home arts, in the care of health and in the proper tending and feeding of children. It does not lie within the province of this report to discuss this question in its full bearing on the work of the elementary schools. But I would invite the Committee to consider the desirability of establishing in Huddersfield an Evening School of Domestic Science, with practical teaching in cookery, laundry-work, household management, and the care of children. With this school might be associated the various dressmaking classes of the Borough. How far it would be desirable to draw together into one institution all evening work in these cognate subjects is a point upon which the Committee will doubtless deliberate. The exceptional size of the area covered by the Borough of Huddersfield may render it necessary to distribute parts of the work, in order that the classes may be within easy reach of the girls and women who would avail themselves of such instruction. It is not easy for a married woman with her numerous home duties to attend many evening classes, especially when considerable time is taken up in reaching the place where they are held.

CHAPTER XII.

The Public Library and the Schools.

The English visitor travelling in the progressive parts of the United States of America is favourably impressed by the efforts which are being made to bring the public libraries into closer connexion with the work of the elementary and secondary schools. No pains are spared to make the libraries as useful as possible to scholars and teachers alike. The love of good reading is one of the most valuable possessions which a community can acquire, and the habit of reading good books is one which should be carefully formed during school life. The Library Association of Great Britain is at present devoting considerable attention to this aspect of the educational problem, and in several of our cities, among which Cardiff and Bootle may be specially mentioned, success has been achieved in forming a close alliance between the public library and the schools.

In the course of my inquiry in Huddersfield, I had the advantage of studying a memorandum on this subject, addressed by Mr. Turner, H.M.I., to the Chairman of the Education Committee of the Borough. In fourteen departments in the public elementary schools of Huddersfield there are already lending libraries, containing in all above 1,100 volumes. There are thirty-one other departments in which a school library is needed. It seems desirable that in the provision of these libraries, and in the improvement of those which already exist, the Education Committee should work in close co-operation with the Committee of the Borough Free Library. The Chief Librarian, Mr. Lockett, is keenly interested in the subject, and would be in a position to render very valuable assistance. Every efficient school in Huddersfield should be kept regularly supplied with a stock of well-chosen books. The method of issuing the books to the scholars would be best left to the discretion of the teachers, regular attendance and diligence being among the conditions which would entitle a child to the privilege of borrowing. At the end of each half-year, the books should be looked over by an official from the Public Library, with a view to replacing those that were worn out, and re-binding those which required it. At each of these periodical inspections of the books, the volumes might be interchanged between the schools, so as to provide for variety in each school library.

Regular conferences between the Chief Librarian and the teachers in the schools would enable books to be so chosen as to fit in with the work done by the scholars in history, literature, geography and nature study. The practical working of the plan would be comparatively inexpensive. It would have the incidental advantage of familiarising children from the first with the benefits offered by the Public Library.

I would suggest that this arrangement be extended to all schools, public and private, of recognised efficiency within the area of the Borough. The public and private secondary schools would derive as much benefit from the arrangement as the public elementary schools.

For three at least of the schools in the Borough it would be desirable to provide a much larger school library than those contemplated in the foregoing paragraphs. At the Almondbury Grammar School, at the proposed Girls' High School, and at the College Higher Grade School, excellent school libraries should be provided. The real efficiency of the schools depends in no small measure on this being done. Special attention might also be paid to the needs of the Longwood and Fartown Grammar Schools, and of the Spring Grove and Hillhouse Council schools. At the Technical College there is already a library which, if strengthened and kept up to date, will meet the needs of the students attending that institution.

CHAPTER XIII.

Suggested Unification of the School-year in Huddersfield.*

In the interests of the College Higher Grade School it is desirable, for reasons given in another section of this report, to unify the school-year in the elementary schools of the Borough. I found, however, on inquiry, that this change would entail a reconsideration of the practice of individual examination, conducted by the Education Committee's Inspector, of the scholars in the elementary schools in Huddersfield. This is not a subject upon which I should have felt it my duty to touch in this report, had I not found it inseparably connected with the question of the efficiency of the College Higher Grade school, upon which, *inter alia*, the Committee instructed me to report to them. In the circumstances, therefore, it becomes necessary for me briefly to refer to a question concerning which I heard many expressions of opinion during the course of my inquiry.

In the first place, it is a great pleasure to me to record the praise which I found given on all hands to the carefulness, thoroughness and educational insight which are shown by Mr. Hefford in his conduct of these examinations in the elementary schools. On the question of the desirability of holding individual examinations of scholars in elementary schools, opinion is sharply divided. For many years our English elementary schools suffered under an extreme and mistaken form of such examination. The mischievous principle of paying grants on the results of such individual examinations (especially when enforced in the case of children of tender years) led to bad methods of teaching, and diverted attention from many of the highest aims of education to that of presenting to the inspector on a given day large classes of children letter-perfect in certain subjects upon which an examination would be held, and in the preparation for which it was only in human nature to expect that teachers would pay a somewhat excessive regard to the known predilections and idiosyncracies of individual inspectors. The best results of education cannot be measured by individual examination. At the same time, accuracy of knowledge and ability to produce knowledge when wanted are results of which the importance cannot be gainsaid. It is reasonable that those who are entrusted with the duty of reporting upon the efficiency of elementary schools should be in a position to assure

* Since this Chapter was written, I have learnt that the Committee have agreed upon a uniform school-year and have recommended a modification in the system of examination hitherto in force.

themselves by actual examination how far the children really know what they are supposed to have learnt.

The system of individual examination as hitherto carried on in Huddersfield has involved as a practical consequence the spreading of the examination by the Committee's Inspector over the whole of the months of the year during which the schools are open. The school-year, therefore, has closed at a different time in each school, according to the date of its examination. This lack of uniformity in the school-year in Huddersfield causes waste of time on the part of some of the children in the schools. Economy of effort and educational efficiency would both be promoted by a change in the present arrangements. But if one uniform school-year is adopted for all the public elementary schools of Huddersfield, some change will be necessary in the method of individual examination. After discussing the matter with those possessing special experience of the work of elementary schools in Huddersfield and elsewhere, I have been led to the conclusion that the interests of educational efficiency in the Borough would be met, (1) by the establishment of a uniform school-year; (2) by having an examination in normal circumstances only in Standards IV. and upwards. [There would be time for conducting this in the two months immediately preceding the end of the school year. The examination should be confined to the work which there would have been time to do up to the date fixed for the examination]; (3) by instructing Mr. Hefford and his colleague to visit during the remaining part of the year the various schools in the Borough and to hold, where expedient, short test examinations on the work done to date. Where the results proved unsatisfactory, a more searching examination would naturally be held with a view to ascertaining the real efficiency of the instruction.

In making this suggestion, I am assuming that in measuring the efficiency of any school, very careful regard will be paid, and due importance attached, not simply to the amount of knowledge which the children possess and are able to show in examination, but to many other indications of the real value of the work which the school is accomplishing, *e.g.*, (1) the tone and discipline of the school; (2) the relationship between the scholars and the teachers; (3) freshness and originality in the methods of teaching; (4) the *esprit de corps* of the school, as shown in its various school societies, in its games, and in the attachment of old scholars to the school; and (5) the intelligence and intellectual interest evinced by the children in responding to the questions put to them by their teachers or by the Inspector. The actual amount of knowledge which young children possess matters little compared with the formation of habits of accuracy and neatness and with the power of putting knowledge to intelligent use.

CHAPTER XIV.

Summary of Suggestions and Recommendations.

It may be convenient if, in conclusion, I briefly summarise the chief suggestions and recommendations which I have the honour to submit in this report for the consideration of the Committee. My inquiry has led me to the conclusion that in the interest of the Borough it will be expedient :—

(1) To develop the Almondbury Grammar School into a first-rate secondary school for boys, organised on a high level of intellectual efficiency, and accessible to boys of promise throughout the whole community. In that event, the representation of the Borough Council upon the Governing Body of the school should be materially increased.

(2) To establish a High School for girls, which should give the best educational opportunities to girls of talent and promise throughout the Borough, and form a centre of girls' higher secondary education for the surrounding districts.

(3) At a future date, when the reorganised Almondbury Grammar School and the proposed new High School for girls have become well established in their work, and when a second Higher Grade Elementary School has been opened, to remove the standards from the College Higher Grade School and to make that school a secondary school for boys and girls, or for boys alone, in which case provision would have to be made for the girls elsewhere. In the meantime, to keep the College Higher Grade School as the crown of the elementary school system of the Borough by organising it under the Higher Elementary School Minute (the modification and extension of which are much to be desired) as a Higher Grade School of conspicuous excellence in respect to equipment and teaching power.

(4) To establish a system of scholarships and of maintenance allowances which would effectively give the best intellectual and social opportunity to boys and girls of talent throughout the Borough. Many scholarships already exist in Hudders-

field, but the time has come for fitting them into a general system and for filling the gaps which exist in the present provision. Any first rate educational system should be inspired throughout with the desire and resolve to allow no talent, however humbly born, to remain undeveloped, or to be choked by the pressure of adverse circumstances. The fund of natural ability in Huddersfield and district is very great. It remains to provide effective opportunity for its best cultivation. To this end, the cost of maintaining first-rate schools, though considerable, will be the best investment that the Borough can make. But it is not enough to provide schools. There must be ample scholarships to enable boys and girls whose parents are in narrow circumstances fully to avail themselves of the courses of instruction which those schools provide. To do this as it should be done, will entail considerable expense to the rates, but, in my judgment, such expenditure would be highly remunerative, directly or indirectly, to every ratepayer in the Borough.

(5) To give at the Almondbury Grammar School and at the Girls' High School a full course of secondary education from 12 to 16 years of age, to a considerable proportion of those boys and girls who intend to adopt the career of teacher in elementary schools; and to increase the efficiency of the already excellent College Higher Grade School, with a view to deriving from that source the remaining number of pupil teachers who will be required for the education of the Borough.

(6) To offer to the teachers already at work in the Borough extended opportunities for further training and culture.

(7) To adopt a policy of concentration at the Technical College, and to focus effort and expenditure upon those departments of the College work which bear directly on the trade of the Borough and upon the training of teachers. In carrying out this policy of concentration, much may be gained from a study of the example set by the City of Bradford. In order to bring the work of the Technical College into closer relationship to the other parts of the educational system of the Borough, it seems expedient to place the administration of the College in the hands of the Education Committee, working through a Technical College Sub-Committee.

(8) To close the Day School of Science at the Technical College.

(9) To grade and reorganise the evening continuation schools, and to bring them into close relationship to the work of the Technical College.

(10) To correlate the art teaching, on a general plan, throughout all the schools of Huddersfield, with a view to improving the educational efficiency of the schools and to increasing the industrial prosperity of the Borough.

(10) To establish an Evening School of Domestic Science.

(11) To establish an Evening School of Commerce and Business Methods.

(12) Steadily to aim at reducing the size of classes in the elementary schools, and not least in those parts of the schools in which children from 5 to 10 years of age are receiving instruction.

(14) To establish a uniform school year for the Borough and to introduce certain modifications into the present system of individual examination.

(14) To issue annually an Educational Directory for Huddersfield, and thus to enable every parent and rate-payer at once to ascertain the educational opportunities offered by the public, and efficient private, schools within the Borough.

MICHAEL E. SADLER.

December, 1904,

APPENDIX.

HUDDERSFIELD PUBLIC SECONDARY SCHOOLS.

AUTUMN TERM, 1903.

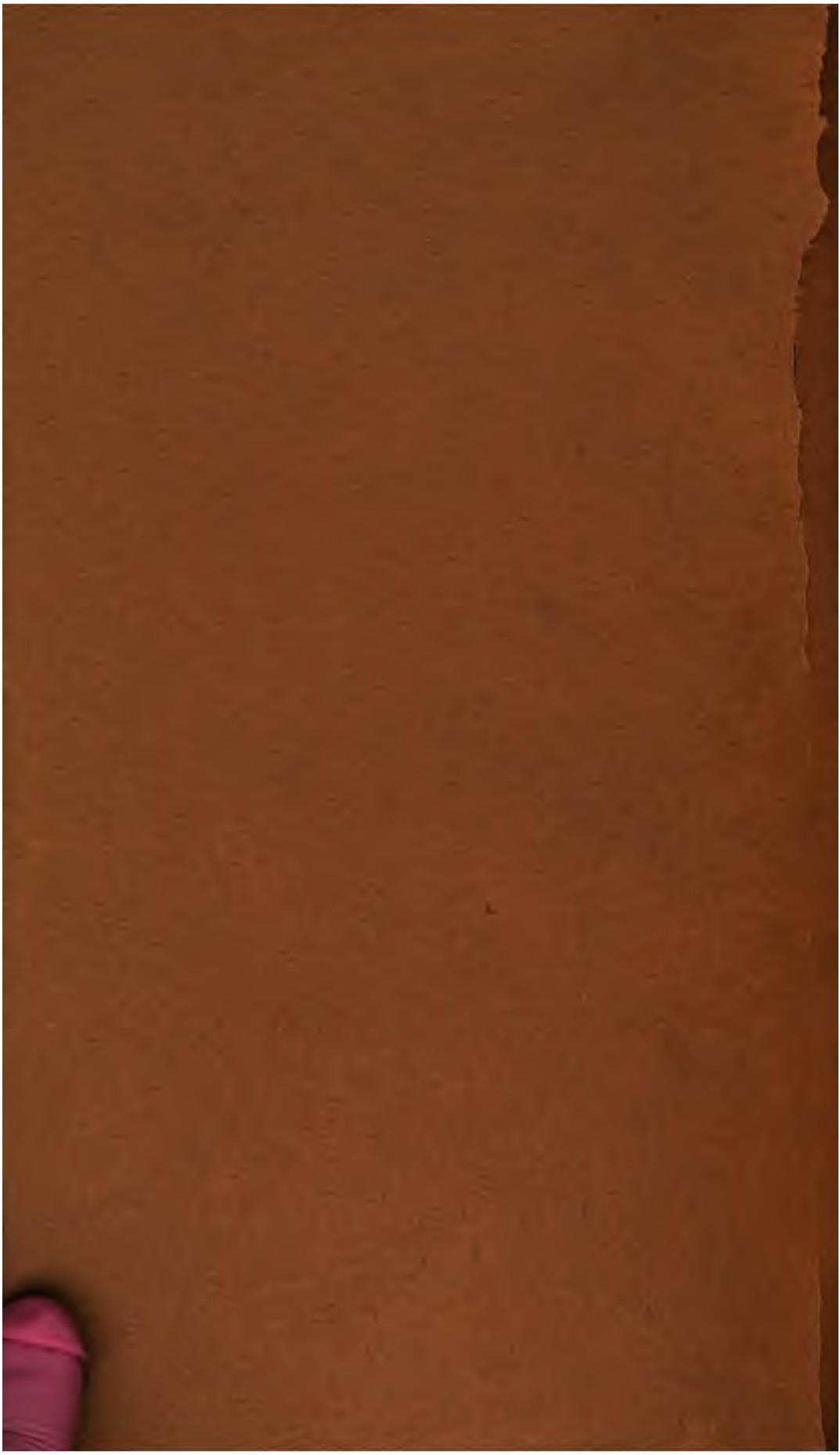
	BOYS.				GIRLS.				
	Number of Day Scholars.	Number of Boarders.	Number from outside the Boro' area.	Number from inside the Boro' area.	Number of Day Scholars.	Number of Boarders.	Number from outside Boro' area.	Number from inside Boro' area.	Total number of Scholars from Boro' area.
PUBLIC SCHOOLS.									
Almondbury Grammar Sch.	35	13	18	30	..	..	..	..	30
Tech. College Sch. of Science	13	0	8	5	25	0	19	6	11
College Higher Grade School	195*	0	52*	143*	..	..	..	.	143
Fartown Grammar School..	128	2	5	125	..	..	..	..	125
Longwood Grammar School	79	0	39†	40	..	..	..	..	40
Totals ..	450	15	122	343	25	..	19	6	349

* These figures include both boys and girls.

† 14 are children of ratepayers in the Borough.

Numbers and Ages of Pupils in Public Secondary Schools in Huddersfield in the Autumn Term of 1903.

	Under 10	10 and under 12	12 and under 14	14 and under 16	Over 16	Total
BOYS—						
Almondbury Grammar School	2	12	13	16	5	48
Technical College School of Science ..	..	1	8	4	..	13
College Higher Grade School	..	..	51	38	4	93
Fartown Grammar School	21	21	17	17	1	77
Longwood Grammar School	6	13	24	9	..	52
Totals ..	29	47	113	84	10	283
GIRLS—						
Technical College School of Science ..	..	2	15	8	..	25
College Higher Grade School	..	..	35	54	13	102
Fartown Grammar School	17	15	15	6	..	53
Longwood Grammar School	5	7	8	7	..	27
Totals ..	22	24	73	75	13	207
Grand Totals ..	51	71	186	159	23	490



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